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ART. I. *The Annual Address, delivered before the Medical Society of the State of New-York, at the Capitol, in the City of Albany, February* 7, 1827. By JAMES R. MANLEY, M.D. President of the Society.

GENTLEMEN,

IN conformity with the usages of this Society, it becomes my duty again to address you on some subjects connected with medicine. I did hope, when last I had the honour, that the topic on which I then particularly treated, would, before this time, have ceased to create any solicitude by being settled by statute: but in this we have been disappointed. The pressure of legislative business—the conflicting interests of individuals possessing influence with the legislature, and especially the unsettled condition of the medical profession,—all conspired to defeat the just expectations of the Society, whose paramount obligation it ever has been, and whose ardent desire it will ever continue to be, to maintain the respectability of the profession within the sphere of its influence, and to protect the public from imposture.

It would better have suited my inclination at this time, to have invited your attention to some important views in pathology, which have excited a more than ordinary degree of interest among physicians, not less from their novelty than from the facility of their application; or to some acknowledged improvement in the practice of our art: and I believe,

if individual wishes had been consulted, it would have been more agreeable to the members, than the subject to which I shall now call your attention. But some circumstances have occurred, since last we met, calculated to have such an important influence upon medical education, and of course upon medical character, that mere indifference to them on our part could not fail to be construed into a dereliction of duty to ourselves and to the public, for which it would be difficult, if not impossible, to apologize. I regret the necessity which imposes an ungracious task, but shall not shrink from my share of responsibility; though there is sometimes a feeling of fatigue attendant upon the protracted discussion of controverted questions, which even the consciousness of right cannot completely alleviate. The public are always unwilling to become a party in disputes which they do not understand: and it is the misfortune of our profession, that there is such a proneness among some, and those otherwise intelligent men, to view its interests so distinct from their own, that they will not be at the trouble of informing themselves of the merits of disputed points relating to medical subjects; although it is a truth as demonstrable as any truth can be, that the whole range of natural science can present nothing which concerns them so nearly. However excusable this indifference may be, when founded on the conviction of their incapacity to form correct judgments, (and that it is so in a great variety of cases, there can be no doubt,) it becomes quite a different question, when the subject is to them as full of interest as it is free from difficulty, and when the meanest capacity which can balance evidence or deduce an inference, can comprehend it with the utmost facility. All prejudices, I care not how inveterate, or how apparently unreasonable, have, in some way, an honest origin; they are most generally just inferences from narrow premises which pride, passion or interest, and sometimes, indeed, a want of interest, prevents us from correcting. When ignorance comes in aid of any or all of these causes, while it furnishes their apology, it offers wider scope to their influence. The observation of facts, or what were presumed to be such, partially examined, are always, however, found to be at their

foundation. If we admit the justness of this remark, we shall not be much at a loss to account for the apparent indifference of the public to all matters purely medical. The history of medicine, unlike all other sciences which have been cultivated from necessity, does not, as would be expected, present it in a state of continued and progressive improvement; as a simple reference to the oldest writers, compared with those which are of recent date, will render manifest: but a very moderate share of attention, properly directed, will suffice, not only to discover, but to place to their proper account all the errors and absurdities, and I had almost said follies, which have occasionally marked its progress. The condition of the science at any and at every given period, was such as might have been expected from the measure of intelligence which was brought to bear upon the facts which it presented, although it had to contend with more difficulties than any other science; because facts in medicine are from their very nature deceptive, and the labour of a rigid examination of them, in order to settle their character previous to any attempt to reason upon them, was always such as materially to impede its improvement, until the most rigid rules of induction were applied to explain their nature and relations. It was natural, therefore, that the immense amount of disconnected truths which the experience of ages had accumulated, would be the prolific source of varied and conflicting opinions, calculated to distract and confound any attempt to generalise them; whence would spring a multiplicity of theories; for genius and enterprise are not always found allied to industry; and it is easier to infer a dogma from narrow data, and reason from hypotheses, than to wade through a sea of facts, and attempt to arrange them with any tolerable degree of precision. Medical men, baffled in their efforts to classify the knowledge which even their own experience had acquired, settled down in the conviction that all generalization should be discarded; while others, proud of their attainment, though in fact they had only partly succeeded in imposing on themselves, scrupled not to give laws to the profession, by inculcating doctrines which they candidly allowed must be admitted with many excep-

tions. A science thus *studied*, and thus *practised*, whose principles had not even the unqualified support of those who taught them, could not fail to be received with distrust by all who were to be the subjects of it; and witnessing, as they did, plans of treatment directly opposite, and partial success attending both, they were more willing to ascribe the cures of the physician to Nature, and the disastrous consequences of disease to an officious interference with her operations, than to accord any measure of merit to the science itself. This, in a word, was the condition of medicine, and the estimate formed of it, for many centuries: and although the time has long passed, when a blind acquiescence in authoritative opinion on the one hand, or a servile observance of that which was only presumed to be fact on the other, marked the character of the profession; yet the prejudices of the public, thus naturally acquired, have to this hour such an important influence, as to render it a mooted point of interest with many persons who are licensed to practise physic, whether to take decisive measures to dispel the illusion, or make their advantage by lending themselves to perpetuate it. In truth, the principles of medicine are now so well settled, and the discoveries in almost every branch of the auxiliary sciences have so much improved our knowledge of diseases and their remedies, that we can no longer fear that its progress will be impeded by any of those causes which formerly operated. The history of medicine and the history of the practice of physic are very different things; and although the former is sufficiently chequered by errors and absurdities, chargeable to the manner in which the science was formerly cultivated, to account for the limited measure of confidence which it has enjoyed; the abuses which mark the latter, are the abounding sources of unfavourable prejudices, which will continue to gather strength, and diffuse their baleful influences, till the general character of the profession be so improved as to deprive them of their apology. It behooves us, therefore, to take care, that while the lights of science are dissipating the obscurity which for centuries prevented physicians from claiming the confidence of the public, other causes, equally efficient and injurious, be not substituted

in its place. It is not now the uncertain and conjectural character of medicine, which can retard the march of its improvement, or impair its usefulness; but it is the character of those who are its practitioners, which may; and what this shall be, (I speak now of the whole profession,) must exclusively depend on the manner in which they are educated. This is a subject which claims precedence of all others, and to it I more particularly invite your attention. I will not waste your time in enumerating the various abuses which now exist in the practice of physic, for many of them are remediless in this generation: such of them as are not, are proper subjects for the attention of the legislature; and it is to be hoped that public opinion is now so well informed, that there will be little difficulty in suppressing them. My present object is to offer a succinct history of medicine in this State; and I am much deceived if it does not furnish abundant material for reflection, which, if properly improved, cannot fail to point to the duty which, under present circumstances, this Society owes to themselves and to the public. Before the year 1770, the education of the physicians of this country was almost exclusively confined to the private tuition of their medical instructers, many of whom, from the difficulties and embarrassments inseparable from the state of the country, possessed but a moderate share of those advantages which could qualify them for the business of teaching. No medical school existed on this side the Atlantic; and although there were a few persons who visited the Continent for the purpose of improving themselves, by the opportunities there presented, of attending the lectures of distinguished professors, and walking the wards of extensive hospitals, still their number was so small as to be comparatively of no account in the general estimate. Indeed the unsettled state of these United States, then colonies of Great Britain, and the limited amount of their agriculture and commerce, did not allow many of our citizens (however much they might have been disposed) to avail themselves of the facilities which foreign schools offered. There was not only little wealth, but that little was so unequally distributed, that few could afford the necessary expenditure which a medical

education abroad required. This state of things continued for many years, and when it changed, it became still worse. The war of independence commenced, and the insecurity of property, the fluctuating condition of the currency of the country, which the exigencies of the State had issued, together with the suffering and anxiety attendant on a protracted appeal to arms, all operated to diminish the scanty means which we possessed for educating our physicians in foreign colleges: added to which, the political character of the war was such, as to close the doors of the English Universities to all our citizens whose measure of loyalty could not furnish a passport across the Atlantic. This was not all with which medical education had to contend: some of the seminaries of learning (of which we could boast but few) were abandoned, or converted into military hospitals or barracks for the accommodation of the enemy's troops; so that the preliminary studies necessary to form the physician, were rendered not only difficult of pursuit, but were in most cases unattainable.

The happy termination of that war, however, gave glorious promise of another kind of independence, which a short half century has emphatically realized. It would seem that the political emancipation of these United States had unlocked the stores of intellect, which for generations had been sealed by the demon of political intolerance; and that the *will* to be free, had not only given freedom from the bondage of foreign laws, but deliverance from the thraldom of foreign opinions. Accordingly we find that as soon as peace returned, the combined energies of the people of this country were put in requisition, to acquire and maintain a moral independence which should perpetuate the blessings purchased by eight long years of peril and privation. The change of character, growing out of this change in our political condition, was early manifested by the interest taken in almost every branch of natural science, and in none was it more apparent than in medicine. The deficiencies of education in this science had been long known and severely felt; so that repeated attempts to improve it were made with partial success, before the revolution, particularly in Philadelphia and New-York; but so much was required to be done,

and so strongly was the popular feeling opposed to the only rational means by which it can be improved, (I refer particularly to the study of the human body by dissection,) that the progress made scarcely compensated the effort expended.

As far back as the year 1764, Dr. William Shippen and Dr. John Morgan, both graduates of the University of Edinburgh, arranged a plan for the establishment of a medical school in Philadelphia, and the former is entitled to the distinguished honour of having delivered the first course of anatomical lectures in this country, to a class consisting of ten pupils.* Six years were required to organize it, but when completed, the combined talents of its professors could compare, without discredit, with those of the school in which its founders were themselves educated. To Dr. William Shippen was assigned the chair of *Anatomy and Surgery;* to Dr. John Morgan, that of *Institutes;* to Dr. Adam Kuhn, *Botany and Materia Medica;* to Dr. Benjamin Rush, *Chemistry;* and to Dr. Thomas Bond, *Clinical Medicine.* They were all distinguished men, well furnished for their profession, and actuated by the purest spirit of patriotism and philanthropy; whose characters, while living, shed so much lustre on the country, that to this day that school feels itself in debt to their reputation. In 1767, a similar attempt was made in the city of New-York, by Drs. Samuel Clossey, Peter Middleton, John Jones, James Smith, Samuel Bard, and John V. B. Tennent, under the auspices of Kings College. They were created a Faculty of Medicine under the authority of that institution, and continued to read lectures on the various branches of the healing art, till the war of the revolution deranged all their plans, broke up the establishment, and finally converted the college itself into a hospital for the British troops; of the benefits of which, even as a school of military surgery, none could avail themselves without embracing, or at least pretending to embrace, the cause of the King against the interests of the country, as

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* Vide Miller's Retrospect of the Eighteenth Century.

the city was in the possession of the enemy during the whole period of the war.

No further effort was made until the return of peace in 1783, when the Regents of the University, with that becoming solicitude for the interests of the profession which they have invariably manifested, and sometimes under the most discouraging circumstances, made it their first business to organize a school of medicine in the city of New-York, and appointed the necessary number of qualified teachers: but, from some cause or other, difficult at this distance to assign, some of the persons appointed were unwilling to assume the duties, and others delivered such imperfect courses of instruction, that the institution languished awhile, and was finally abandoned. From this time, until the year 1792, there were no public medical lectures delivered in this state, although the school of Philadelphia was progressively improving. This deficiency, always sensibly felt, began now to be viewed in a light little less than odious; for it was allowed, that New-York possessed the facilities for teaching medicine to as full extent as our sister city, and to defer the establishment of a medical school any longer, would argue not only a want of public spirit, but a paucity of talent in the profession to maintain one, which they were very unwilling to admit. Accordingly Dr. Samuel Bard, then the only survivor of all those who had planned the same enterprise in 1767, and a trustee of Columbia College, with the assistance of some intelligent friends in that board, after the lapse of twenty-five years, made another attempt to institute a school as a faculty in Columbia College, which was successful; and the trustees of that institution immediately appointed a full board of professors and assigned to them their several branches of instruction: to Dr. Wright Post, *Anatomy;* Dr. William Hammersley, *Institutes of Medicine;* Dr. John R. B. Rodgers, *Midwifery;* Dr. Nicholl, *Chemistry;* Dr. Richard Kissam, *Botany*, and to Dr. Richard Bayley, *Surgery*. They all entered promptly upon their duties, and the school was organized, under circumstances which gave better promise of future usefulness and stability than had accompanied any previous attempt. Notwithstanding the cha-

racter and talents which it embodied, it never attained an eminence which could compare with that of Philadelphia: occasional changes were made in its board of professors, in consequence of deaths and resignations; but these neither added to, nor subtracted from, its reputation. Its growth was slow, and its benefits much circumscribed; and though it lived twenty years, it never could be said to flourish; but whether from faults of the soil, season, or culture, it is difficult to determine. The reason why it never received that measure of patronage from the public, which the learning and the zeal of its professors merited, must be sought for among the number of those vexed questions, which can never be satisfactorily explained until the Legislature of this state shall take such an active and ardent interest in medical education as *shall place the medical license completely within the power of our own laws.**

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* The following facts, in relation to the agency of Queens College in 1793–4, will serve to show some of the causes of opposition to the medical school in Columbia College, at the time it was organized.

In the year 1787 Dr. Nicholas Romayne, a physician of eminence in the city of New-York, who had been educated at Edinburgh, established a respectable private medical school, and continued it as such till 1791, when he associated with Drs. Sir James Jay, Nicholl, Moore, the two Kissams (brothers), and Mitchill, in an application to the Regents of the University to take them under their protection and grant them corporate powers. The Board of Regents listened with interest to their memorial, and were disposed to accord to them the object of their prayer; but delayed the execution of it for want of the powers necessary. They applied to the Legislature, and, with the aid of Dr. Romayne and his friends, procured it without difficulty, and without doubt would have exercised it in creating a College of Physicians and Surgeons in the same year; but, in the meantime, Dr. Samuel Bard and his medical friends, whose interest with the board of trustees of Columbia College, of which he was a member as well as Dr. Romayne, was such as to induce that body to send a representation to the Regents, that they as trustees, were then organizing a faculty of medicine under their own authority, which they trusted would supersede the necessity of a College of Physicians and Surgeons by the Regents; and they, therefore, prayed them to suspend proceedings in relation to the proposed College of Physicians and Surgeons till the issue of their measures was manifested: whereupon the request of the trustees was granted, and all further proceedings suspended. The trustees appointed a faculty

The circumstances attending the early history of this medical school, in connection with the fact that its usefulness was impaired, its growth impeded, and its final destruction rendered necessary in despite of the talents which, under a more favourable condition of things, would have sufficed to have given it a fixed and an eminent character, are calculated to teach us an important lesson. They show that other interests than those which concern the respectability of the medical profession, and the improvement of the practice of physic, to say the least of them, oftentimes temper the zeal of those who support, and furnish the motives of those who oppose, a regularly and legally constituted medical school. The conduct of some physicians at this day is not only similar, but, in all its parts, identified with the measures which, thirty years ago, operated with such baleful effect on the school of Columbia College; but whether an experiment, which has been three times repeated and always with the same results, is to be considered as conclusive, is a point left to be settled by a higher authority than we as a society, can exercise.*

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as above named. Dr. Romayne was left out, although two or three of his associates were included. The consequences of this measure, which even at this distance of time appears a little extraordinary, were soon manifested. Dr. Romayne, knowing his own strength of character, his acquirements, and the power of his friends, declared an open opposition. His private school had acquired celebrity, and his talents were of the first order, and without much difficulty he procured the recognition of Queens College, and delivered lectures on the various branches of medicine under its authority.

What the motives were, of the trustees of Queens College in thus unceremoniously interfering with the academic concerns of this state, we are left to conjecture. It had always been a sickly institution, and stood in need, no doubt, of all the support it could obtain, to enable it to compete with its sister at Princeton.

* Queens (now Rutgers) College in New-Jersey has three times made attempts to institute a medical school in the city of New-York. The *first* about the year 1793; the second in 1810; and the last in 1826. The first effort had the effect of so distracting the exertion necessary to form a successful institution, that the one organized about the same time, under

In the year 1806, the Hon. Legislature of this state passed the bill, entitled an "act to incorporate medical societies for the purpose of improving the practice of physic and surgery in this state;" which act incorporated all the physicians and surgeons, resident within its limits, into county medical societies, and provided for the appointment of delegates from all the societies who should constitute the medical society of the state, whose duty it should be, to meet in Albany on the first Tuesday of February in every year, to control and supervise all medical matters not provided for by statute; and as far as their ability extended, improve the practice of physic and surgery. The passage of this act marks an important era in the history of medicine in this state. It brought order out of confusion; settled the minimum measure of medical acquirement to entitle to practise physic; and placed the power to license where, in fact, it ought always to have been, in the hands of medical men, who could have no possible temptation to abuse it, and who *alone* can be the competent judges of medical qualifications. So exclusive was the law, that it did not admit the diplomas of medical schools or colleges to interfere with its exercise. It considered them simply as academic honours, which could confer no political rights; and if in effect licenses at all, they were such by courtesy. Its benign results were soon developed: the profession assumed a new character, and a spirit of emulation was enkindled which the frequent interchange of medical opinions is, at all times, calculated to cherish and to strengthen. The restraints which it imposed were such as had long been felt

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the authority of the trustees of Columbia College, lost the only opportunity that ever presented of rivalling the medical school of Philadelphia. The *second* took advantage of the dissentions of the professors of the College of Physicians and Surgeons and those of the medical faculty of Columbia College about the time of their proposed union, and so far succeeded as to withdraw a considerable portion of patronage from them, and transfer it to themselves: and the *third* is now in a course of dubious experiment, under the immediate control of a majority of the *quondam* professors of the College of Physicians and Surgeons, who found it necessary or convenient to resign their chairs in April last.

to be necessary; it therefore commended itself to every intelligent member of the community, whether in or out of the profession: and perhaps it is not too much to say, that this law, considered simply in reference to the good of the public, apart from that of the profession, was one of the most important which the Legislature have enacted. As experience has pointed out its defects, it has from time to time been amended; and, although some of its essential provisions have failed of their effects, it is a monument of the wisdom and forecast of those who framed, as well as of the liberality of those who gave it their support; since more has been done to improve the condition of the practice of physic through its agency, than could have been effected without it, in the lapse of half a century.

In 1807, the Regents of the University instituted the College of Physicians and Surgeons in the city of New-York, and the Legislature patronised it to an extent which warranted the expectation of its becoming, at no distant period, one of the first, if not the very first school of medicine in this country: but circumstances, over which they with their measure of information had no control, have operated to check the flattering anticipations which its founders indulged when it was first chartered. The munificent grants which it has received, if properly applied, and the support from the profession which it would have claimed, if judiciously conducted, would have enabled it, long ere this, to have attained a celebrity which must have reflected honour on this state and country; in place of which, ever since its organization, (now twenty years) both its finances and its reputation have been suffering from the effects of distracted counsels from within, and open and undisguised hostility from without. Its history is instructive; it has taught a lesson, which by the way ought never to have been necessary, that no chartered powers or state patronage are, of themselves, sufficient to control public opinion: in all countries it would be omnipotent if circumstances did not mould it to hold an unhallowed compromise with political restraint; but in this, where it reigns uncontrolled, it fashions the law itself, so that it is no more than its own transcript.

It would be to trespass on your time unnecessarily to enter into its details; so many editions have been already published, and it has occupied so large a share of attention for the last seven years, that few persons, who feel an interest in it, can have an apology for their ignorance. It is sufficient for my present purpose to remark, that the substantive support which the public afforded it, since its organization, exceeds the sum of $140,000, all of which, from the improvident management of its funds growing out of the mode of organization, has been lost to the public; and the trustees of a large part of the grant, have become its creditors to an amount nearly equal to the real estate belonging to the corporation.* Of this sum upwards of $74,000 were paid for a botanic garden in 1810, and so completely is this lost, as far as the public or the profession are concerned, that not a dollar's worth of benefit has accrued to either from the purchase.† It is now no

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* These creditor-trustees have since resigned their places, prosecuted for the amounts claimed, and become the self-appointed professors of the institution denominated "Rutgers Medical College."

† What was formerly the Botanic Garden, is now a piece of ground of about 20 acres, situated three miles from the City-Hall of the City of New-York, on the middle road. It was established by Dr. David Hosack, then professor of botany in Columbia College. After several ineffectual attempts to procure the endowment of his professorship, the doctor determined to establish this garden with his private funds in 1801; but finding it burdensome after seven years, he conceived the project of disposing of it to the State, and strange as it may appear, the Legislature, after having twice refused to endow the professorship with the sum of 750 dollars per ann. in order to the maintenance of a garden, were finally induced to purchase at the price of 74,268 dollars, the yearly interest of which exceeds five thousand. It ought not to be supposed, that any censure can attach to the Legislature of 1810 for this, as has since been proved, useless expenditure of public money. So much interest did the expected purchase create, and so much benefit was expected to be derived to medical and agricultural science by its becoming the property of the public, that almost all the literary and scientific institutions in the state, including the corporation of the city and the Governors of the New-York Hospital, became, in fact, the proprietor's petitioners. When the purchase was made, however, and almost as soon as the transfer was executed, Dr. Hosack abandoned the pursuit of botany as professor, and accepted the chair of *theory and*

longer a question, that its limited usefulness, and its improvident expenditure, were alone chargeable to the unlimited confidence which the Regents placed in its board of trustees, a majority of whom were persons interested in the profits of instruction. In my last annual address I gave a succinct account of this school, and the causes which provoked and cherished that hostility which has finally succeeded in new-modelling the institution; I shall not, therefore, repeat it here, but shall merely observe, that during the last season the Regents of the University have provided for its complete and permanent settlement, and have appointed a full board of professors, eminently qualified for the stations they occupy; men who, by the terms of their appointment, can have no control over its finances, and who, by the experience of the past, can cherish no disposition to the exclusive control of its honours. These honours are the property of the profession at large, and they will take care that neither pecuniary interest nor personal favour have any agency in their distribution. Whatever may have been the literary merits of its former professors (and I have no wish to detract from them) it is certain, that the present incumbents of the several chairs are *not flattered* by be-

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*practice of physic and clinical medicine*, which was a much more productive situation; and this branch of science, for the cultivation of which the public had, but four months before, appropriated so large an amount of money, was merged in the general course of *natural history*, taught by Dr. Mitchill.

The title to the garden, it is believed, was vested in the Regents of the University, who very properly made it the duty of the trustees of the College of Physicians and Surgeons to preserve and improve it; but so little advantage was derived, and so considerable was the charge of maintenance, that they soon begged to be delivered from the benefit. The improvements, none of which except the fence which enclosed it, were of a permanent character, are in a state of rapid decay; the plants have, some years since, been removed to embellish the grounds of the Lunatic Asylum at Bloomingdale; and the farm is converted into a pasture, for which the tenant may pay about 150 or 200 dollars per ann.

The foregoing is a short history of the garden. Never was expectation more highly raised, or more deeply disappointed; and all that can be said is, that the public paid the money, and Dr. Hosack received it.

ing considered their equals in every essential quality which can constitute able and successful teachers.

In 1812, the Regents of the University organized a medical school at Fairfield, in the county of Herkimer, where all the branches of medical education are taught on terms so reasonable, and in a manner so satisfactory, as to have procured for it a reputation which reflects honour on the state. At the time when this school was instituted, there were two in New-York city; one under the authority of the trustees of Columbia College, and the other under the immediate control of the Regents. These were, however, consolidated shortly after its establishment, and became *one*, under the title of the "College of Physicians and Surgeons." Although it had a small beginning, and has received from the Legislature little or no substantive patronage, it is in a very flourishing condition, and gives promise of increasing usefulness. It appears to have been established by the Regents with a single eye to the improvement of the character of the profession in the interior and remote parts of the state; and it has answered their highest expectations. The teachers are men of reputation, who appear to have thought less of borrowing character from their stations, than of making it for the institution: several works, which are alike honourable to the profession and their authors, bear testimony to the merits of the professors.

This is a short history of the medical schools of this state, and it must be confessed that, taken as a whole, it is more calculated to mortify our state pride than to minister to our vanity. While the means of instruction have been progressively accumulating, and every art and science which in their practical application could be made to bear upon the improvement of the country, have been cultivated with an assiduity and success which their importance demanded; the schools of medicine alone have disappointed the just expectations of their founders, and in place of commending themselves to the undivided support of a generous public, have been conducted as if they had been instituted simply with a view to make the fortunes and the characters of those who had interest enough

to procure the places of professors. The only green spot on which our recollections can rest with satisfaction, is the school of medicine at Fairfield. Ever since its organization it has kept the "noiseless tenor of its way," neither coveting the distinction which arises from angry controversy, nor shrinking from a public exhibition of its claims, whenever interest, jealousy, or hostility, have attempted to invade them. Situated in the interior of the state, it has silently and successfully prosecuted the great ends of its institution, without having to contend with dissentions from within or opposition from without, till it has fairly attained the confidence of the profession and the support of an enlightened public.

If the history of all the other attempts is such as represented, and that it is, does not admit of a doubt, what is *our* duty? Situated as we are, the profession in its representative character, to whom the public look with anxious solicitude as the guardians of all their medical interests; is it not as much our obligation as our privilege to suggest correctives for all the wrongs, and sanctions for all the rights, which appertain to the medical profession in this state? As regards our own personal interests in any legal enactments, they are less than nothing when compared to those of the public; and I am persuaded, that there is not an intelligent and regularly bred physician in this state who believes that the provisions of any law, which does not invade private right, can effect him to his personal injury. But it becomes a very different question when the character of the profession, as a whole, is in danger of being debased in public estimation; for then it is, that state pride is mortified, and that noble spirit of emulation which all professions should cherish, and without which none can attain eminence, is liable to be transmuted into the grovelling love of gain, which compensates its possessor for the loss of all honourable distinction, by placing him in a condition *to purchase* the adulation of his dependants. It is not now, nor in this country can it ever be a question, whether a liberal profession should exalt or degrade the measure of honourable attainment. It is not the *number* but the *quality* of its members which can give to it an elevated character: and to

that object all its collective efforts should be directed. If we examine with care the history of medicine in this state, we need be at no loss to account for the small measure of success which has attended almost all attempts to form a great medical school. The organization of all of them was defective. The teaching, examining, and the licensing powers (where they existed,) were all claimed and exercised by the same men, and the emoluments accruing to the professors were made, in a great measure, to arise from this unnatural and impolitic union. This was an evil tolerable in the early period of our medical history, because well educated men were comparatively few, and their first efforts were modelled after the old European schools; but prudence should have dictated the propriety of separating the temptations of interest from the nobler incentives of medical distinction, as soon as the experiment was fairly tried and promised to be successful. Besides, the constituted authorities of this state have never efficiently patronised their own schools as they might and ought to have done; but, on the contrary, through a mistaken courtesy, have accorded the same privileges to the diplomas of license issued by foreign colleges as to their own: on which account medical schools, many of them offering limited courses of instruction, have been multiplied to the manifest detriment of our own institutions, and the positive injury of the cause of medical education.

I not long since remarked, that many of the causes which operated to impair the value of the license and respectability of the profession, could not be removed until the Legislature of the state should provide that the right to practise physic should issue under their own immediate authority. This I will presently show; but I will proceed one step further, in order to prove that the deficiency of the statute in this essential particular, has been, and still continues to be, a great impediment in the way of the success of our medical schools.

The causes of the failure of the first attempt to organize a medical school, which was immediately after the conclusion of the peace of 1783, at this distance of time it is difficult to as-

sign; they most probably were of a personal nature, and had no connection with the merits or deficiencies of the plan. The second, under the authority of the trustees of Columbia College, gave ample promise of permanency and celebrity; but on account of the want of any legal restraint upon the academic honours or certificates of acquirement issued by the colleges of other states; an opposition, arising out of mere individual differences, very soon assumed the attitude of a rival seminary, which although located in New-York, derived all its powers from Queens College in New-Jersey: and what is especially worthy of remark, in this institution which it patronized, all the powers of teaching in all the several branches, and the examination of candidates, and recommendation to degrees, were lodged *de facto* in one man, Dr. Romayne.* It would hardly be supposed that rivalship like this could create any diversion from the authorized school, furnished as it was with able teachers; but when we take into view that all the profits of teaching accrued to that individual, and the expenses to the pupil, by this arrangement, could be diminished by at least one-half of the usual fees; there is no difficulty in accounting for the result. The fact is, that though the parent institution admitted to the honours of graduation but few of the persons who were there taught, a much greater number of pupils were educated in this school, and afterwards received their licenses by judges' certificates, than were found in attendance on the lectures of our college. Such was the laxity of the law of license, that in most cases nothing more was necessary, in order to procure it, than the certificate

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* From a note written by Dr. Mitchill, and appended to Hosack's inaugural address, we learn, among other things, that "Dr. Romayne exercised his talents as a private teacher, and so assiduous and laborious was he, that he gave instruction on almost all the branches of *professorial* knowledge. Anatomy, practice of physic, chemistry, and botany, were taught by this extraordinary man, and with such success that he drew hearers from distant parts, even Canada.

"After his separation from Columbia College he found it expedient to procure academic honours, and more especially diplomas from some other seminary"—[QUEENS COLLEGE.]

of the pupil's instructor, that the applicant was of full age, and, in his opinion, qualified to enter upon the active duties of his profession. This state of things continued for several years, and the effect was such as might have been anticipated: the growth of our own school was checked at the very time when it required the united efforts of the profession to sustain it; and such was the extent of the injury, that it never survived the consequences; for during the existence of this opposition, which derived all its power to annoy from another state, the medical school of Philadelphia was proceeding to acquire that confidence and character which has ever since particularly distinguished it.* In 1810, about the time that the union of Columbia College medical faculty with the College of Physicians and Surgeons in New-York was projected by the Regents, another attempt was made, under the authority of the same college of New-Jersey, to institute a medical school in New-York: and it so far succeeded that the various professorships were filled, whether by appointment of the trustees of Queens College, or by arrangement of the incumbents, confirmed by them, it is not material to inquire. It is very certain, that it had its origin in the disappointments created by the act of the Regents, which re-organized the College of Physicians and Surgeons, and excluded certain individuals from any participation in its honours or emoluments, who had heretofore been much interested in both. Lectures on all the

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* "Before this period (1792) there had existed in Philadelphia two distinct medical schools, viz. that of the College of Philadelphia and another connected with the University of Pennsylvania; and that before they became united, they mutually injured each other, but neither became respectable. A union was at last effected by combining the talents of both in the same institution. Since that event, the medical school of that city has acquired such celebrity," &c. &c.—*Vide a letter to James S. Stringham, M.D. by David Hosack, M.D. published by C. S. Van Winkle*, 1811.

It was about the time of this union, which, according to the views of the writer of the above letter, was productive of so much celebrity, that Dr. Romayne procured a recognition of his private school by the trustees of Queens College, without which his opposition to the Columbia College school would have been, in a measure, powerless.

various branches were given in this school for several years, and its pupils were graduated by the authority of Queens College. Public opinion, however, after a lapse of five or six years, pointed to the necessity either of procuring a recognition from the state of New-York or of abandoning the institution; and, after several ineffectual applications to be clothed with chartered powers, the latter alternative was adopted in 1816.*

The history of this second attempt, on the part of the college of New-Jersey, to establish a school of medicine in this state is rendered particularly interesting, as the medical profession is now for the *third time* called to resist the interference of Queens College, and under circumstances which renders resistance much more obligatory than at any previous period.† The question for the constituted authorities now to settle appears to be simply this—whether full force and effect shall be

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* It is due to the then trustees of Queens College, of whom the Rev. John H. Livingston, D.D. S.T.P. was president, to state, that as soon as it was known that the Regents of our University were opposed to the domiciliation of this school in this state, they promptly testified their respect for our state authorities and their acquiescence in their decision. They immediately signified to this faculty of medicine, that their connection with Queens College must end, and it ceased accordingly. How different is this conduct from that of the present trustees of the same institution though existing under another name?

† Five of the seven persons who constitute the medical faculty of Rutgers College, viz.—Drs. Hosack, Mitchill, Francis, Mott, and Macneven, were, previously to April last, the professors of the College of Physicians and Surgeons in New-York. They thought it *necessary*, or *convenient*, or *politic*, (and it is not exactly known which,) to resign their places; but, with the exception of Dr. Mitchill, all signified to the Regents their willingness to be re-appointed, finding, it is presumed, that this *ruse de guerre* did not answer expectation. The Regents however, who saw no difficulty in filling the chairs, to say the least of them, with gentlemen full as competent as those who had just resigned, refused to re-admit any one of them. Whereupon they applied to be made a faculty in Columbia College, and being refused, they applied to Union College for the same purpose; still not succeeding, *in extremis* they make an audible appeal to Rutgers College, New-Jersey, *and are admitted:* one of the conditions of the contract being, that Rutgers College shall receive the sum of TEN DOLLARS for

given to the laws of this state? or, whether their true intent and meaning shall be openly and with impunity evaded? Whether the authority as exercised by the Legislature themselves, or by them delegated to the Regents of the University, shall be treated with contempt and ridicule by persons claiming powers under a *foreign college?* or, whether they shall require it to be executed and respected?

Whatever may be the diversity of opinion existing on the subject of multiplying schools for medical instruction, with *full security that the powers of teaching and licensing shall not be abused for the sake of interest*, there surely can be but one, when the question, stripped of all its embarrassing connections, is presented in its most simple form, viz.: Shall the authorized schools of this State, which, after an experience of thirty years, have finally provided that the interests of teaching, examining, and licensing, shall, in no case, be combined; be made to compete with an institution acknowledging a foreign authority, and that merely *pro forma*, in which these powers are all combined and committed to six persons, who are, in no wise, accountable for their exercise?* Where, I

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each and every candidate which these gentlemen shall recommend to the degree of Doctor of Medicine!

As the fact of the late Professors having applied for re-appointments, after their resignation, has been very boldly denied, I shall present the following extract of a letter, addressed by Dr. David Hosack to the Hon. Gulian C. Verplanck, as conclusive on this point:

"When we the late Professors left the College, we entered into an obligation to each other to combine our interests and our labours. I find to my surprise that Dr. Mott and Dr. Macneven have *secretly* offered themselves to the Regents as candidates for their former places in the College, and that too *under any circumstances.* I therefore feel myself absolved from my contract with them, but I cannot suffer my old friend and colleague, Dr. Francis, to become a sacrifice upon this occasion—if therefore he can be provided for and the obstacles to our admission removed, I should certainly have no objection to return to that institution, *but not otherwise.*"

* The Inaugural Discourse of President Hosack opens in the following manner: "Fellow-citizens and students of medicine, we are assembled on this occasion to dedicate a new temple to medical science. Having dissolved our connection with another institution, *we* have undertaken to es-

would ask, is the security that the state may not be overrun by unqualified practitioners, when licenses can be procured simply by filing the diplomas issued by such irresponsible corporations? Where is the security that a medical school may

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tablish a new foundation, under circumstances, we trust, more favourable to a successful cultivation of medical studies, than we have heretofore enjoyed. *Now no longer under the restraints of rivals in the profession, envious of our prosperity; no longer impeded in our progress by a* BOARD OF CONTROL; *but happily left to* OUR OWN *judgment and experience to direct us how far, and in what manner we can best offer instruction,*" &c. &c. "In the constitution of this establishment it is also proposed, as the result of long experience and observation," &c. &c.—"that the professors of the different departments, who are necessarily, from their functions, the most competent to estimate the merits of their pupils, and who are the persons most deeply interested in the preservation, the improvement, and reputation of the institution, shall be the EXCLUSIVE JUDGES to ascertain and decide upon the qualifications of the candidates for medical honours."—*Vide Inaugural Discourse, by D. Hosack, M.D.* &c. &c. 1826.

The reader is requested to compare the above with the following, written by the same author in order to justify his agency in bringing to pass the union of the schools in New-York in 1811:

"I also approved of another proposition that had been suggested by some of the members of the Board of Regents, viz.—to vest the internal government of the College in a Board of Trustees, to be composed of the President, Vice-President, Professors, and Treasurer of the College, *with others of the most respectable members of the profession.* This arrangement secures to the profession the chief direction of its own concerns, of which they are supposed to be the best judges, at the same time that it places the institution, in common with the other colleges of the state, under the superintending and paternal care of the Regents of the University. Believing each profession to be the best guardian of its own interests, I acknowledge that I also approved of this part of the plan proposed, for I should as readily expect the clergy to place their concerns at the disposal of physicians or lawyers, as that we should delegate those of the medical profession to any other body, than that which exercises a superintending care over the whole literary interests of the state, as is done by the Chancellor and Regents of the University."—*Vide Letter to James S. Stringham, M.D. by David Hosack, M.D.* published 1811.

The Inaugural Discourse, above quoted, is recommended to the attentive perusal of every intelligent physician in the state. It is true, that, with the exception of the direct avowal that all the honours of the profession can be best distributed by men who are interested in multiplying them! there is nothing new to attract his attention; but he will be surprised with the in-

not spring up in every ward or township, claiming precisely the same powers and exerçising them to the same end? And if they may, what guarantee has the public, that the licenses to practise physic may not become as numerous as the licenses of excise, or any other grant of privilege which a fee may purchase?

I am sure that I require no apology for the language here used; the consequences to result from the location of such unlicensed institutions, in this State, must be alike disastrous to the respectability of the profession and the true interests of the public; and if I did, I might quote the terms which the *very men* who now ask the confidence of the public as officers and professors of *Rutgers Medical College*, formerly used. The following is their language, addressed to the Legislature of this State, in March 1816, when an institution, precisely such as that to which they belong, and which acknowledged the authority of the same college (Queens), were petitioning them for corporate powers.

"*Self-created* medical institutions of this kind require but slight patronage to spring up whenever the good opinion which a few gentlemen entertain of their own talents, shall induce them to assume the office and character of professors. Their task is also very easy; for they are accountable to nobody for whatever they do, or what they neglect. Far different is the spirit in which the College of Physicians and Surgeons is founded under the sanction of the Legislature. It is committed to the superintendence of the most eminent and learned permanent body in the state, the Regents of the University, who appoint to vacancies, exact an annual account of the state of studies, and can afford the best assurance that this part of the public education shall be prosecuted with all the attention due to its great importance."

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dustry which collected, and the ingenuity which could make a book of such extraordinary materials. The author may exclaim, in the language of self-gratulation, *exegi monumentum ære perennius*, and it will be emphatically true, if by the phrase is understood, a work which no artist can copy or author successfully rival.

And again: "Any new number of physicians *may, with the same* propriety, associate together, issue advertisements," &c. &c.

And again: "The practice of all nations shows the impropriety of incorporating two medical schools in the same city; and that the advancement of medical science is best promoted by the establishment of only one. In the great cities of Edinburgh, Dublin, Paris, Vienna, &c. there is but one in each. The history also of the medical school in Philadelphia, which never flourished until the two opposing schools were united,"* &c. &c. This is the language of five of the seven persons who now constitute Rutgers Medical Institution. If it was the language of truth in 1816, it is so now. Circumstances have not altered; the remonstrants have *only* changed places: THEN they were the Professors of the College of Physicians and Surgeons; NOW they are the Rutgers Medical Faculty. It is true that they have not asked an incorporation; but, as the law stands, they have, or rather, I should say, claim to have all the benefits of one, by construing the law as merely requiring their graduates to file their diplomas, in order to constitute them licentiates. Whether it be prudent, politic, or just, to permit the exercise of this assumed right, to the manifest injury of our own schools, when it is within our power to apply the remedy, is a question which we are now called to pass upon.† By simply declaring that foreign medical licen-

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* Vide Memorial of the College of Physicians and Surgeons in the city of New-York, dated March 25, 1816, signed, by order and in behalf of the College, by Samuel Bard, M.D. President, and B. De Witt, M.D. Vice-President; but presented to the Board by Dr. Macneven.

† The following extract from an address to the public, published in the Evening Post of November 16th, 1826, under the proper signature of James R. Manley, President of the Medical Society of the State of New-York, which no apologist for the Rutgers School has attempted to answer, will show, in a proper light, the pretensions of this new and self-constituted arbiter of medical honours. "A number of persons, most of whom are professors in a public medical school chartered and patronised by this State, find it necessary or convenient to resign their places, assigning as their reason, though not in terms, that the government of the Regents of the

ses of all descriptions, previously to becoming licenses in this State, shall be submitted to the Censors of this Society, and be by them approved, we have a security, and in fact the only one we can have, that they shall not impair the respectability

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University and Trustees is much too irksome and officious to suit their purposes: the combined powers of teaching, examining, and graduating, must be committed to them alone, or what is in fact the same thing, to them with others not physicians, whose opinions on the two most essential points they may control: whereupon they associate to form a school which shall acknowledge not only no restraint, but no settled rule of conduct (for they have published no circular); and, in order that it may have a public character, they apply to several colleges in succession to invest them with *de facto* corporate powers. They finally *purchase* an affiliation with an institution deriving all its powers, and those merely academic, from another State, and congratulate themselves on their escape from all the trammels which the statute of this State or the laws of its corporate societies impose. So far forth as the public are informed, they recognise no rule of action except their own *sic volo:* the rights of *teaching*, *examining*, *graduating*, and, according to their own view, *licensing*, are made to centre in themselves alone; and the consideration to the parent institution for all these dangerous privileges, is the sum of *ten dollars* to be paid for each and every diploma to which their broad seal is appended. These are the facts. And now I would ask, to what purpose have all the laws regulating medical education been enacted, if they can be evaded in this manner? Why should the statute require the age of majority—a certain defined term of pupilage—and a preliminary course of elementary education, from the students of the authorised schools of the State, if the spurious offspring of another State institution can with impunity contemn all its provisions, and defeat all its salutary purposes? Does any man in his senses believe, if Rutgers College should create a faculty of law, and locate it in this city, that the judges of our several courts would accord to the diplomas which they might issue, the right to practise law? And yet there is as much law in the one case as in the other. If the diplomas of the faculty of Rutgers College were simply academic honours, the multiplication of them could create no solicitude: certificates of acquirement or testimonials of merit can do no harm, even if conferred on the most undeserving, further than to disgrace the institution upon whose credit they are issued; their number would in a measure regulate their value, and after all is said, their intrinsic worth will be estimated by the characters of those who may possess them. But the case is different when they are licenses; then they become the greatest benefits or the most comprehensive evils which the laws of the land can authorise, for they convey nothing less than the power over the

of the medical character, or degrade the measure of medical acquirement. The State of New-York has long submitted to the influx of foreign licenses to practise physic, although it is notorious that the requisitions of our laws in regard of our own pupils, demand more than is required in any other State. The natural consequence of which, under existing circumstances, is, that a large number of our physicians are those who have been educated in schools whose measures of requisition are not only not settled by any public law, but liable to incessant variation, as interest or expediency may suggest. A legal enactment, such as here contemplated, is not only reasonable in itself, but an act of justice to our own students, and our own colleges; for, as things now are, in order to compete successfully with other schools, they must either degrade the standard of qualification below that which the laws have provided, or submit to see their own lecture rooms deserted. The latter alternative, we doubt not, would be embraced by every man worthy to occupy the station of a professor under the authority of this State; although it must be confessed, that it could scarcely consist with our obligations of duty, to subject them to the temptation, when the remedy can be so easily provided. Laws as exclusive as this, exist in several of the Uni-

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life and fortunes of every individual in the community, who, by disease or accident, may be in a situation to claim the services of physicians.

"I trust I have said enough, not only to show the propriety of procuring an expression of medical opinion on this momentous subject, but to justify myself for my agency in endeavouring to obtain it. Indiscretion or interest, in their attempt to stifle this effort, have in fact produced the wished result. I only regret that I have been officially made the organ of communication. If the very respectable Trustees of Rutgers College have any cause of complaint, they must blame the indiscretion of their friends; if their medical faculty think that they have, they must blame themselves. As to Mr. ———, who has evinced so much solicitude on the subject of foreign and *irregular corporations*, I would merely ask him one question, viz.: Does not an institution such as above represented, very much resemble a *border lombard?* and if it does, can he be made to think, through any influence of prejudice or favouritism, that the issue of an unauthorised or unworthy diploma, conveying the right to practise physic, is less injurious to the public than the circulation of a bad bank note?"

ted States, particularly in *Massachusetts*, *Maryland*, and *New-Jersey*. In the last named State, the diplomas issued by authority of its own college, (Queens, now Rutgers) never were licenses to practise physic; and it would present a singular anomaly, if political courtesy should be so far extended, as to accord privileges to those certificates of attainment which its own State laws do not recognise.

Gentlemen, I have trespassed so much upon your patience, that I feel the necessity of bringing these remarks to a close. I should incur the risk of offending your moral sense, if I should descant on the responsibilities of the physician, and therefore shall not attempt it. The zeal which you have always manifested to improve the practice of physic in this State, is a pledge to the public that you feel all their solemn weight, and will leave nothing undone, which it is in your power to perform, to meliorate the condition of suffering humanity; and I trust that the time is not far distant when they will duly appreciate it. The prejudices of ignorance have vanished altogether—those of error will soon follow; when you may expect to receive a full compensation for all your disinterested efforts, in the distinct recognition that the people of this State are fully aware of their importance.

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ART. II. *Account of a Disease that prevailed during the early part of* 1826, *in Kingston, Jamaica.* By H. DE LEON, M.D. of Jamaica, W. I.

THE history of epidemic diseases involves a great variety of interesting particulars, which, in the present state of our knowledge, are inexplicable. That which appears to me least accurately known, most difficult of comprehension, and which it is essentially requisite to understand in order to annihilate it, is the cause of their origin and propagation. It is inferred from observation, that epidemic diseases have their source in emanations from the soil, given off during the decomposition

of vegetable matter. As this decomposition is favoured by heat and moisture, and as these diseases are most prevalent during times of rain succeeded by heat, the inference seems not without foundation. I believe that, in honest fairness, this is the absolute amount of our knowledge. No chemist has yet detected the presence of the deleterious principle in the atmosphere, so that the nature of the exhalation, whether compound or simple, is still unknown; and hence the method of destroying its hurtful power, by abstraction or addition, is still a most desirable attainment. He who shall make us acquainted with these circumstances, will deserve the gratitude, and obtain the blessing, of every human being; for he will arm mankind with the power of arresting, at once, the spread of the most widely destructive diseases, by promulgating the method of destroying their pestilent causes at their very birth. Although nothing appears easier than, by analysis of the infectious atmosphere or of the gases as they escape from putrid marshes, to discover the principle which gives rise to epidemic diseases, and to learn the efficient mode, either, if a compound, of resolving the noxious combination into its harmless constituents, or, if a simple, of forming it into an innoxious compound; yet all the best-directed efforts of the most enlightened inquiry have hitherto been baffled, and we are, with all our chemical knowledge, in as complete a state of ignorance, in respect to these subjects, as were our ancestors; no one having been able to confirm or overthrow the suggestion of Hippocrates, that the mysterious cause was diffused through the air. Had we possessed this knowledge, we would have enjoyed cause for congratulation in the ability to dry up the very sources of the late formidable epidemic with which Kingston was visited; for, I have scarcely any doubt, that the disease, which I am about to describe, originated from some miasma, the peculiar product of vegetable decomposition. It may be urged in objection to this supposition, that the disease in question is singular in its nature, and almost unknown in its occurrence, while the production of miasmata must take place wherever there is vegetable matter in a state of decomposition. In answer to this objection it may however be

stated, and with apparent triumph, that differences in the nature of the emanation must necessarily result from differences in the combination and proportion of vegetable matter, acted upon by decomposing agents of different nature, power, and quantity; and that these differences in the nature of the emanation will give rise to differences in the character of the complaint produced.

I regret that I had no means of ascertaining, with accuracy, the exact number of individuals whom it attacked; but I know that there were very few persons who entirely escaped it.

Early in December, and through the following months, several distinct cases of erysipelas presented themselves, and about the middle of May distinct inflammation of the cellular membrane appeared in one or two persons, while, in by far the majority, erysipelas and inflammation of the cellular membrane occurred simultaneously. Nothing remarkable or unusual was observed in the weather during all this time; the sea-breeze, that blows so refreshingly during the spring and summer months, blew without alteration; we were visited with the seasonable rains in April, which lasted, with intermissions, for a week. A short time after, many persons complained of cold and cough. Whether these were occasioned by true influenza, or were signs of a less severe affection of the fauces than showed itself after the complete establishment of the epidemic, I cannot, from my own personal knowledge, assert—though, by the cases that subsequently came under my notice, I am led to the belief that what appeared influenza was really a mild and modified form of the erysipelatous epidemic. This belief gains strength from the fact that many persons, reported to be suffering under influenza, were for a long period, annoyed by these symptoms; and at length, with a slowly increased feeling of ailment, became the subjects of erysipelas in one or other of its multiform appearances. In other instances, the attack was strikingly sudden. One victim to the disease was awakened out of her sleep with severe shivering, to which in less than an hour succeeded all the symptoms of the dis-

ease in a highly aggravated degree; and at the expiration of three days, she was a purplish corpse.

The majority of cases, however, were of moderately slow growth: patients suffered, for two or three days previously to the complete development of the disease, uncomfortable sensations, slight stiffness and soreness of the general body, dryness of the throat, want of appetite, fatigue and languor: these gradually increased in severity, and successively all the phenomena of the disease exhibited themselves. The patient was then affected with sense of fulness and tickling in the throat, which was very seldom accompanied with any soreness, still less with any pain; nor was it increased by the act of deglutition. It was very frequently attended by a scanty and viscid secretion from the numberless small glands of the mucous membrane of the fauces. In proportion to the malignancy of the attack, was the freedom from pain; so that from this circumstance, aided by other considerations, a correct prognosis was deducible. So little distress was experienced that patients were often unwilling to reply distinctly to questions relative to the state of the throat—with difficulty believed that it could be suffering any alteration from its healthy condition—and with still more difficulty believed, that there could exist any pathological connection between its state and the sensations they were suffering, severe, harassing, and distressing as they were. Almost in every case, however, patients, on repeated and serious inquiry, confessed that they felt some degree of uneasiness, to which from its slightness they paid no attention, on one or both sides of the throat, but generally on one side only. On looking into the throat, the appearances observed were singular and remarkable, so that it was impossible to refer them to any disease described by nosologists. A darkly-coloured, purplish inflammation commenced from the curtain of the palate, spread over the uvula and over the tonsils, and became, in some cases, fainter and fainter as it descended over the pharynx; while, in others, the pharynx, as far down as could be seen, was equally inflamed and purplish. Sometimes several veins were seen on the pharynx turgid with dark blood. The tonsils were almost always

more or less swollen, and in severe cases covered with small ulcers, which were generally charged with a whitish yellow excretion, and were of a circular figure. They often attacked the uvula and the pharynx, while the mucous membrane became puffy and purplish. The ulcers, in some cases, were confined to the tonsils; in some, to the uvula; in some, to the pharynx; and in a few of malignant severity, they were scattered upon the pharynx, upon the tonsils, upon the uvula, and upon the sides and under-surface of the tongue. The uvula was almost always relaxed, in different degrees in different cases: in two, it was exceedingly relaxed, and, on inspection, was observed curling its tip upwards to its base in a singular manner. In one case, a darkly-purple colour bespread the whole tongue, and continued for a long time, increasing in intensity of shade as the disease became more established, and gradually disappearing with the gradual recovery of the patient. In a great number of instances the papillæ of the tongue were swollen and raised, so that it appeared sprinkled with red acuminated elevations. Whenever this appearance was observed, the affection of the throat was sure to be discovered. The external glands of the neck were frequently enlarged: in one case under my care, they became highly inflamed and greatly swollen, after the subsidence of what I judged to be erysipelatous inflammation of the larynx. The marked symptoms of this case were, laborious difficulty of respiration—almost complete suppression of voice, so that scarcely intelligible whispering was the only result of attempts at articulation—very slight and very infrequent cough—pain in the situation of the larynx, aggravated on external pressure—sense of suffocation—slight uneasiness of deglutition—pharynx purplish—tonsils slightly swollen—pulse small and rapid, beating 120 in the minute—great sensation of weakness, and occasional heat of skin. This case ultimately recovered. The affection of the throat existed in a mild degree for some time, and then became severe on the accession of febrile symptoms and general pains.

Not one case came under my observation, nor one whose description I heard from others, which was not preceded with

this peculiar affection of the throat. I was curious to examine the throats of several persons who made no complaint, and in all I discovered the pathognomonic appearance, of a more or less dark colour according to the mildness or malignancy of the cause, the strength or debility of the subject. The febrile symptoms were not preceded, unless in cases of malignant severity, by any marked shiverings; a slight degree of coolness was generally felt, the fingers and toes becoming pale and cold. The heat of skin was very seldom ardent; it was more often that kind of smothered heat felt in cases of mild typhoid fever; it was soon accompanied with general moisture, and in a few days abated so considerably as to be very little beyond the natural standard. When the face was attacked with well-marked erysipelas, the heat of the skin, and other febrile symptoms, were higher, and lasted until the beginning of desquamation. The thirst, although great, was not excessive, unless when the stomach was attacked; it was then distressingly severe. The pulse was full, soft, and quick, 120 in the minute. This was the character of the pulse whenever there was fever; but on its abatement or termination, the pulse, still soft and full, sunk to between eighty and a hundred beats. When the epidemic seized the face in the form of distinct erysipelas, a peculiar hardness characterized the pulse. The fever was usually distinguished by irregular exacerbations and remissions; the former occurring in the evening; the latter in the morning. The muscular anxiety was very troublesome, making the patient restless and uneasy; this sometimes amounted to absolute pain, of a shooting character, about the joints and limbs. The fingers were frequently so seized, and this darting pain in them was the harbinger of erysipelatous and cellular inflammation; they became red, swollen, hard, and extremely sensible to the touch, and at length suppuration took place. In the two cases in which this happened, extreme pain was also experienced under and about one of the axilla and down the back. The part so affected, gave acute pain on the slightest pressure; it was hard and solid to the touch during the stage of inflammation and effusion of lymph; but subsequently, on the occurrence

of suppuration, became soft, and communicated the sensation which has been termed boggy. The swelling was not very conspicuous, unless when there was a great collection of matter; it was a diffused elevation, without any well-defined boundary. At particular spots erysipelatous inflammation appeared, which however soon vanished, the external skin assuming its natural appearance. The inflammation of the throat usually lessened, although it did not totally subside, on the occurrence of the cellular inflammation. In mild seizures erythematous blushes alternately appeared and disappeared in various parts of the body, without ending in true erysipelas, or being succeeded by inflammation of the cellular texture. In one instance, the whole surface of the abdomen was attacked with a deep-coloured redness, which vanished on pressure and gave no pain; it spread rapidly all down the thighs; it was accompanied with remarkable inflammation of the pharynx and tonsils, already described, and with a more ardent fever than I had before witnessed in this epidemic. This patient was only twenty years old, had never before suffered any ailment, was of an unimpaired constitution, and of a highly sanguineous temperament. The glands of the axilla became swollen, hard, and painful, sometimes when the cellular membrane, seated in that part, was attacked with inflammation, sometimes when it was unaffected. Diffused tumours formed in the thigh, very painful, hard, massy, and dark red, which terminated in suppuration and the discharge of great quantities of matter, with shreds of ruptured cellular membrane. After the formation of these tumours, which in malignant cases were of a mulberry colour and marked with purple veins, all the febrile symptoms generally suffered a striking diminution. These tumours, as well as the painful enlargement of the glands, if mild and without the accompaniment of external inflammation, sometimes were dissipated by the immediate and repeated application of leeches and hot linseed-meal poultices.

In one patient a diffused painful swelling took place in the forehead, just above the nose, unattended by external redness, which suppurated and discharged a great deal of matter. It

was indeed singularly remarkable how frequent was the occurrence of tumours in different parts of the body, and how irresistibly prone they were to take on the suppurative process.

A lady, with a broken-up constitution, was simultaneously affected with inflammation of the inguinal glands and neighbouring cellular membrane, inflammation of the pharynx and larynx, and tumefaction of the tonsils. The symptoms of this dreadful case were, extreme difficulty of deglutition, and complete loss of power of articulation—pain on pressure upon the fore part and sides of the throat—constant ejection of a viscid, ropy mucus—slight heat of skin, with moisture—pulse varying between 120 and 130—stupor. The swelling in the groin and down the thigh was hard, and felt as if interstitial union had taken place between the respectively subjacent substances; it was acutely sensible to pressure; presented a purplish surface, and was sprinkled with vesicles, containing a straw-coloured fluid. Vesicles of this kind were observed in two other cases, which recovered. In one they occurred upon a slightly erythematous surface, with cellular inflammation; and in the other, about the neck and shoulders, while the face and scalp were affected with distinctly marked erysipelas in a severe degree. The cicatrices in the neighbourhood of surfaces, attacked with inflammation, were sure to be elevated above the plane, and filled with serous fluid, the effect of venous stagnation.

In one curious and formidable case, the cellular texture about the arm and back, and the cellular texture and skin of one of the nates, were simultaneously attacked with inflammation. Suppuration took place in the nates, and large quantities of matter were daily discharged. When this ceased, the pain became more violent in the shoulder and back, and the glands of the axilla also became swollen and tender. After a few days, there was a slight abatement of the disease in the back and shoulder, and the stomach became the seat of the disease. Before it fixed itself upon the stomach, darting pains were felt in the fingers and toes and about the joints. The throat was affected from the commencement of the patient's

illness, grew worse when the stomach was seized, and only recovered with the recovery of health. The peculiar appearance of the throat was invariably present, whether the disease showed itself in the form of erysipelas on the face, or whether it attacked the larynx, the stomach, the intestines, and when the cellular membrane was inflamed. The cough was always very slight and infrequent; the deglutition was only difficult when the inflammation attacked the œsophagus and when the epiglottis was enlarged; the respiration was unaffected.—There were in several cases and in hysterical subjects, occasional attacks, distressing and alarming, of sense of suffocation, the consequence of spasm of the epiglottis. When the disease fixed itself on the stomach, the particular phenomena exhibited were, burning heat at the scrobiculus cordis, tenderness on pressure, constant and harassing thirst, great oppression and sense of fulness and weight, nausea and vomiting, alarming prostration of strength, and extreme dejection of mind; when on the bowels, sense of heat and tenderness on pressure were also present, but the nausea and vomiting, the sense of fulness and the thirst, were less urgent and distressing. The signs of its seizure of the larynx have been already particularized. Whatever tended to debilitate proved a predisposing cause of the disease. Individual instances occurred in which it was distinctly obvious that fatigue, anxiety, and fear respectively paved the way for a violent attack. The influence which fear possessed in rendering the disease virulently obstinate was remarkable; cases, indeed, every now and then presented themselves, the circumstances of which justified the conclusion, that fear, while it brought the system more easily under the dominion of the epidemic, considerably also protracted its termination.

Is it that the active predominance of these causes disturbs the functions of the brain, so as to occasion an insufficient secretion of nervous principle, or causes its disproportionately rapid expenditure; and that in consequence of the failure or too scanty supply of nervous matter, the various organs of the body are incapacitated for the performance of their several offices? Those most important organs, which are employed

in the assimilation of food and in the formation of the vital fluid, the stomach and small intestines, the lacteal and pulmonary apparatus, thus becoming deranged in function, genuine blood cannot be supplied to the brain, and hence a nervous matter, deficient in quantity and inferior in quality, must be produced. Two causes, then, are actively attacking the brain, the one deteriorating the material on which it is to work, the other interfering injuriously with its function. It seems a warrantable anticipation, that future inquiry will discover that in proportion to the proper quantity and perfect elaboration of nervous matter is the resisting power to morbific agencies. The operation of food deficient in nutrient principle, insufficient or superabundant in quantity, in rendering the system susceptible to attack, admits of a similar explanation, though, in this case, the depravation of nervous matter is a secondary effect, the product of digestion, in the first instance, suffering deterioration.

From the circumstance that the above-mentioned causes rendered the system more easily impressible to the morbid emanation, the moral ones further diminishing its powers of counteraction, the propriety of wholesome and moderately stimulant aliment, mental courage and freedom from bodily fatigue and anxiety, was suggested, and in a considerable proportion of cases they were usefully recommended.

Youth did not seem to exempt the individual from the power of the epidemic agent, although it did appear to possess a modifying influence. In young persons it assumed the form of inflammation of the throat, and swelling of the tonsils, generally in conjunction with glandular tumefaction. Mothers, with reason, felt apprehension even for children of fourteen months' old. The constitutional strength of one poor baby, under my care, gradually yielded to the violence of the poison, and, during the last few days of struggling existence, a hard and dark-coloured tumour, bearing some resemblance to a malignant carbuncle, arose on the cheek, while the whole internal fauces presented a frightful mass of whitish ulceration. I believe that no person under twenty years of age was affected with inflammation of the cellular membrane. Temperament evi-

dently produced an effect upon the agency of the epidemic—opposing or favouring, according to the nature of the constitutional peculiarity. In persons of the sanguineous temperament, the disease put on the least baneful form, and most readily yielded to medical treatment; while in those decidedly phlegmatic, it assumed the most malignant character, and fastened upon the system with tedious inveteracy.

There is every reason to presume, that the disease was not contagious. Persons who had never visited the sick, and those far beyond the probable reach of contagion, did not escape it; while, on the other hand, many were the individuals who, though in attendance for a considerable length of time on those suffering under the malignant form of the malady, did yet enjoy an immunity from attack. It is most true, that the disease appeared in a great number of persons in one house; but this fact does not, by any means, contravene the belief of the non-contagiousness of the disease. It is to be naturally accounted for by peculiarity of soil favouring the exhalation of the poison, or of situation giving rise to its concentration, by the powerful operation of fear, fatigue, anxiety, and grief, in debilitating the constitution and preparing it for attack, and by the irregularity of diet, with its attendant disturbance of digestion, consequent upon domestic alarm and confusion. Not one fact occurred, within the range of my knowledge, which could not be satisfactorily explained without reference to the doctrine of contagion; but I know and heard of several facts which could be only traced to epidemic influence.

The fever appeared to be the constitutional effect of local irritation. The reasons which seemed to warrant this supposition were, the primary occurrence of the local affection, the progressive disappearance of the constitutional ailment with the resolution or maturation of the local inflammation, and, in a great proportion of cases, the continuance of the local, after the subsidence of the constitutional affection. An additional argument in support is, perhaps, to be found in the fact, that in proportion to the severity of the local disease, or the excitability of the peculiar constitution, were the symptoms of febrile excitement. The evidences of local congestion were, in

every case, distinctly obvious; and these were always observed, in a greater or less degree, before the evolution of the febrile paroxysm. In some instances, particular glands and the neighbouring cellular membrane became inflamed, which then only occasioned fever, when an increase of the inflammation, in extent or degree, had taken place. But if the local inflammation did not continue to spread, or did not rise in severity, no pyrexial phenomena were excited. The appearances in the pharynx of veins turgid and purple, and the tumefaction of its lining membrane, and also in one extraordinary case the complete darkly purple discoloration of the tongue, previously to the development of fever, seemed at once to mark venous congestion, and to prove that the constitutional disturbance was the result of the local capillary interruption. The tenor of these observations is strengthened by the appearances exhibited in an incision of the inflamed glands and cellular membrane; the texture so exposed looked as if every vessel, however minute in the healthy state, was gorged to its utmost distension with blood, and usually with blood of a darker than natural colour. The blood of one patient, the only one in whom the symptoms called for bleeding, was unusually dark in colour and loose in texture.

The probable pathology, deducible from the phenomena of the disease, also lends its aid towards the establishment of the supposition that the fever had its source in the local derangement; if to that, which itself is only hypothesis and needs confirmation, can be granted the privilege of extending support. The miasma, extracted during vegetable decomposition, most probably reaches the system through the medium of the air we breathe. It seems justifiable to infer, that accompanying the elements of the atmospheric air it is received into the blood contemporaneously with the escape of carbon; which process it neither diminishes nor arrests in consequence of the superior affinity of oxygen for carbon. The miasma, so mingled with the blood, traverses with it the circulating vessels, but does not exert any obvious deleterious influence, until the blood acquires in the veins a larger proportion of carbon, which then combines with it, and from the chemical

union results the substance that deprives the blood of its naturally stimulant power. The vital fluid, thus deteriorated by a deadening compound, is incapable of exciting into healthy contraction the vessels through which it ought to be circulated, and hence venous congestion is the consequence. According to the quantity of this compound, or the quantity of excitability in the system, will be the greater or less degree of congestion, and the subsequent fever will be also proportionate to the congestion and temperament. Besides, it is apparently not unreasonable to conclude, that the system was previously rendered liable to take on diseased action from the depravation of all the secretions, the nervous matter or prime agent of resistance of course included, which necessarily results from the depravation of the blood; since to suppose that genuine secretions can be formed from blood, charged with a noxious principle, seems to be quite preposterous. This theory of the pathology of the epidemic rests only on conjecture and assumption; for prejudice, climate, and the fastidiousness of domestic tenderness, offered insurmountable obstacles to the establishment of its truth by the test of morbid anatomy. The explanation which it is able to give of the phenomena, if considered satisfactory, will, in some measure, tend to its corroboration. Dilation, and particularly in respect to this part of this essay, is not attempted, because the humble aim of the author is merely to present an entire and faithful portraiture of the disease. One fact, hitherto unnoticed, is unequivocally established by the evidences of this singular epidemic —the close alliance, if not the actual identity of erysipelas and cellular inflammation. The universal presence of inflammation of the throat—in some cases combined with erysipelas—in some, with cellular inflammation—and in others, the occurrence of cellular inflammation before the complete disappearance of well-marked erysipelas on the leg; added to the apparent fact, that these varieties of disease arose from the same source, are incontrovertible proofs of this relationship. Why the cellular membrane and mucous membrane of the fauces, and the skin, should be the parts selected by the disease for seizure, is a question which will most probably for

ever baffle all human inquiry. The attempt to investigate the cause of the particular operation of particular agents, has hitherto ended only in exposing our limited ability, and in proving, to the confusion of the loftiest ambition, that there is a boundary beyond which the intellect of man cannot penetrate. Although the confession is unavoidable, that the sphere of our mental vision is circumscribed, yet ought not this truth to damp the ardor or repress the energies of the enthusiastic inquirer; since we do not know where is the impassable limit; and since it may be that as we approach, what at our outset appeared the extreme verge of human attainment, the horizon may stretch forward equally with our progress. More advantage is, however, to be gained from the frank and ingenuous confession of ignorance than from sophistical and ostentatious assumptions of knowledge; for the mind is too apt to cheat itself into the belief, that it has acquired knowledge, when it has only learnt words. This proneness of the mind to rest contented with vague assertion and to mistake unmeaning verbiage for true explanations, has tended, perhaps, more than the inherent obstacles of the subject, to throw a mystery around medical science, and to retard its advancement.

The treatment of this hitherto undescribed disease was generally adequate to the restoration of health; for though, in some of its varieties, it was appallingly hideous in the appearances it presented, and, in all, distressingly alarming both to its sufferers and witnesses, it yet was not signalized by any extraordinary fatality. The common epidemic fevers of the country are, though of less terrible magnitude in respect to phenomena, more destructive in their effects. The mode of treatment was necessarily varied in accordance with the variety which the disease assumed. In those very few cases, which were characterized by high excitement, the saline draught, with liquor ammoniæ acetatis and spiritus ætheris sulphurici, and purgatives to produce eight or twelve evacuations in the four and twenty hours, were found advantageous; and as soon as an abatement of the high pyrexial symptoms took place, liquor arsenicalis with saline mixture and infusion

of quassia, with or without salts, was substituted and given every hour; and when there was a still further abatement, sulphate of quinine was administered alternately with the before mentioned mixture, every second hour. This plan was not efficient in the great majority of instances. When the febrile symptoms were smothered, and when the local derangement evidently arose from the introduction of a large quantity of the poison, or of a small quantity in a debilitated subject, the two best remedies were camphor and the carbonate of ammonia; and of these two, the carbonate of ammonia was by far the most preferable. These remedies were selected with the view of stimulating the capillary vessels, and, in their action, of proving direct counter-agents to the effects of the miasma.—Even when the stomach was attacked, these were decidedly the most effectual means for lessening the burning heat and vomiting. If, however, this latter symptom did not yield, as happened in aggravated cases, to these remedies, it became necessary to have recourse to the addition of tinct. of opium, in small doses, every second hour; and this was found successful also in calming that extreme general irritability which frequently accompanied the worst forms of the disease. It was so given with striking benefit even in a case of erysipelas on the face, attended by great prostration of strength, several ulcerations on the pharynx and tonsils, and with symptoms denoting an attack on the stomach. The tincture of opium was sometimes given with the effervescing mixture; but this combination was seldom effective of the purpose. Leeches over the epigastric region, when the disease was distinguished by an ardent character, followed by a blister, proved in general effectual in checking vomiting, relieving the sense of weight and oppression, and diminishing at least, if not removing, the burning pain. The camphor was usually given in powder, in two grain doses, every second hour; and the carbonate of ammonia was given, alternately with the powders, every two hours, in doses of two or five grains, or more, according to the existing circumstances of more or less urgent inflammation, or more or less typhoid severity. The latter was dissolved in camphor mixture and infusion of serpentaria, with

the addition of spiritus ætheris sulphurici ; and when the vital energies were in a sinking condition, pulvis cinnamomi compositus was united with the camphor powder, and confectio aromatica with the mixture, and fifteen or thirty drops of spiced brandy, with the nourishment. Blisters over the chest diminished the sense of constriction and the difficulty of breathing, which were sometimes present in hysterical subjects. Inhalation of sulphuric æther, or of the aromatic spirits of ammonia, alleviated the anxious sense of suffocation, frequently the most imminently alarming symptom by which the patient was harassed. Gargles of the stimulant and astringent kind were most useful. The decoction of bark with the tincture of myrrh and muriatic acid, or decoction of barley with tincture of myrrh, sulphate of alum, and tincture of capsicum. The ulcers within reach were beneficially touched with corrosive sublimate, or with nitrate of mercury, in solution. In all modifications purgatives were essentially necessary. Few patients were indeed so weak as not to bear from eight to twelve evacuations, not only with safety, but with obvious advantage: and this part of the treatment was continued until they assumed a natural appearance. The compound extracts of colocynth, or the powder of jalap, or sulphate of magnesia, were the medicines from the purgative class chosen to accomplish the purpose in view. The preparations of mercury were only prescribed when the function of the liver appeared to be disturbed and when it was suffering from congestion, and their use was discontinued as soon as it was evident that the objects, which sanctioned their exhibition, were attained. Other than this, they effected no good: the disease pursued its course, uninterrupted and undiminished by their administration. Although it was plain that they were useless, except for their specific purposes, there was no cause to believe that they were actually injurious. It was considered warrantable only in one case to have recourse to venesection, and even then it was recommended with feelings of apprehension. The quantity taken was about twelve ounces, which produced fainting. Six and thirty leeches were afterwards, at several times, applied to the anterior part of the throat. This was a case of inflamma-

tion of the larynx, sketched in a foregoing part of this essay. I firmly believe that bleeding, in this modification of the epidemic, saved the patient; and I further as firmly believe, that had it been employed in the other modifications, it would have very often instantly terminated, or ultimately shortened life. When the disease seized the bowels, leeches were successfully applied to the abdomen; and until the evidences of inflammatory action were, in part, subdued, it was expedient to resort to the use of hydrargyrus cum cretâ and sulphas magnesiæ. These were succeeded by the milder tonics. Leeches were also applied in considerable numbers to the glandular swellings and over the inflamed cellular membrane, and hot linseed-meal poultices frequently renewed. As soon as there was a sense of fluctuation, which was almost always obscure, one, two or three incisions were made in the most dependent part. They were, in one instance, made over the inflamed part, with the effect of diminishing the pain and inflammation.

Nothing remains to be mentioned, except the exceeding benefit derivable from the use of liquor arsenicalis in the treatment of erysipelas. Instantly, on the diminution of the febrile symptoms, the liquor arsenicalis was ordered in doses of two drops every second hour, and was powerful in conducting the case to a safe termination. This medicine, combined with infusion of quassia and sulphate of magnesia, could be given without occasioning the least excitement, when bark would have stimulated the system and produced heat of skin and increased quickness of pulse.

A detailed account of one astonishing case is subjoined, in which the disease shifted from place to place, and at last, after a deceitful appearance of amendment, fixed upon the larynx, and killed the patient.

Mrs. C. had been suffering from slight fever and sore throat several days before I was called on the 23d of June. The following were the symptoms: A. M. Pulse 120, weak—pain in the head—slight heat of skin—great thirst—nausea and vomiting—as soon as the erect posture was assumed vomiting was induced—the tongue was darkly brown in the middle, but its edges and tip were stigmatized with numerous red papillæ

—the whole pharynx was purplish—the uvula greatly relaxed and tumid, and its tip covered with ulcerations—no pain in the throat—no difficulty of swallowing—pain all along the sternum, increased by deep breathing and speaking—slight occasional cough ; this seemed to indicate inflammation of the superior mediastinum. P. M. Pulse 124, weak and full.

June 24, A. M. Pulse 124, soft and full—moisture and softness of skin—pain under the sternum a little less, the consequence of the application of a blister—no sleep—no vomiting—nausea abated—the purplish tinge of the throat somewhat diminished. P. M. Pulse 124—skin moist and soft—recurrence of pain under the sternum, and spreading of it round the circumference of the body between the thorax and abdomen, apparently in the situation of the diaphragm—the pain is constant and excruciating, increased by paroxysms and on deep breathing—sense of heat under the sternum—great thirst—throat has the same appearance.

June 25, A. M. Pulse 100, softened, full—natural moisture on the skin—abatement of pain under the sternum and round the body—less sense of heat—slight diminution of thirst—several ulcers in various parts of the throat.

June 26. Pulse 100, soft and full—moist skin—no pain under the sternum nor around the body—no external soreness—less thirst—the purplish appearance of the fauces has disappeared, and it is now palely red—the ulcers are cleaner—uneasiness in the throat—tenderness felt on pressure over the anterior part of the throat—speech thick. P. M. Pulse 130, very weak—all other symptoms unaltered. In the middle of the night an ardent paroxysm of fever came on, with great difficulty of breathing, during which she had several convulsions, and in two or three hours death closed the scene.

ART. III. *Observations on the Efficacy of Emetics in Spasmodic Diseases; with an Inquiry into the final cause of Sympathetic Vomiting.* By JOSEPH M. SMITH, M.D. Professor of the Theory and Practice of Physic and Clinical Medicine in the University of the State of New-York.

THE object of the following observations, is:

*First.*—To show the inefficacy of the common mode of treating the spasmodic symptoms of hysteria and epilepsy.

*Secondly.*—To exhibit the superiority of *emetics* as anti-spasmodics.

*Thirdly.*—To inquire whether their use is not founded on the laws of the animal economy: and,

*Fourthly.*—To notice some of the diseases, in which they may be successfully employed.

I. The common mode of treating the spasms of hysteria and epilepsy has long been established. Among the anti-spasmodics, most generally used in these diseases, are, assa-fœtida, castor, æther, tincture of valerian, and opium.

In many cases of hysteria, it has seemed to me doubtful, whether the above medicines mitigated, in the least degree, the violence of the spasms. I have exhibited them in liberal doses, and patiently awaited the result of their operation; but, to my disappointment and mortification, I have frequently witnessed the continuance of the fits, in defiance of all their anti-spasmodic properties. In most instances, the convulsions would doubtless terminate favourably, after a time, were no remedies employed; and I apprehend, that their spontaneous cessation has frequently been ascribed to medicines, which, in reality, produced little or no effect.

I would not presume to say, that the medicines, arranged in the class of anti-spasmodics, are useless or inert. Some of them, indeed, possess active qualities; and may be used with advantage, in cases where there is spasm. But in a disease so violent as convulsive hysteria, I dare venture to appeal to every unbiassed clinical observer, for the verity of the assertion, that no reliance can be placed on any ordinary anti-

spasmodic but opium. That this will, in some instances, put a period to the fits, is evident from experience; but it is also evident, that in others, particularly those in which there is plethora, and the spasms are violent, considerable doses may be administered and frequently repeated, without the symptoms being palliated; nor will these yield until a sufficient quantity has been given to induce a state of coma.

In plethoric habits, it is customary to bleed before administering opium. This plan is highly judicious. Bleeding will diminish local, as well as general plethora; lessen the impetus of particular determinations, and generally render the system more susceptible of the operation of medicine. Venesection, however, when it is most required, is sometimes either impracticable or extremely inconvenient, on account of the intractable struggles of the patient, during the paroxysms, and the shortness of the intervals. When the operation is performed, and the other means duly employed, it is expected, that the convulsions will soon cease; but how often does it happen, that several hours elapse before they subside?

The above observations are equally applicable to epilepsy, the clonic spasms of which are similar to those of hysteria, and demand the same treatment, notwithstanding they may arise from very different remote causes. Indeed, the remote causes of both disorders are generally disregarded, so long as the fits succeed each other with rapidity; the first object being to remove the spasms.

II. The experience I have had of the utility of emetics in hysteria and epilepsy, enables me to assert, with confidence, that they are more efficacious than any remedy ordinarily employed in convulsions.

The rules to be observed in their administration are few and simple. If the paroxyms quickly succeed each other, the emetic should be given in divided doses during the intervals. No alteration of the symptoms will take place until the occurrence of nausea; after which, the spasms will be found less violent, and the patient will complain of sickness and languor. As the nausea increases, the spasms become still

weaker, and the intermissions longer, and as soon as full vomiting occurs, the paroxysms cease to return. Such is the manner in which the convulsions generally disappear. In some cases, I have seen the fits terminate before vomiting was excited; and in others, noticed several slight ones after the contents of the stomach were ejected; but in no instance have I known vomition to fail in producing the desired effect. In general, between the fits, patients are rational; but it sometimes happens that they are delirious or comatose. When this is the case, there is some difficulty in administering the medicine; but in common, sufficient can be given to answer the intention. Under these circumstances, the first favourable change is a perfect restoration of sense and voluntary motion; the patient expressing great uneasiness about the stomach.

Should the patient be unusually plethoric, and especially if there be high arterial excitement and a determination to the head, it will be proper, if practicable, to take from the arm, a quantity of blood, anterior to giving the emetic. This mode of proceeding will render the convulsions more manageable, and obviate any injurious effects which might resnlt from the efforts of vomiting. Simple fulness of habit, if it be moderate, will not demand the use of the lancet, until after the spasms are allayed.

Should the convulsions manifest a disposition to return, a dose of laudanum or some other anti-spasmodic, will, in general, prevent them.

The exciting causes of hysteria and epilepsy are perhaps as multifarious, as those of any other disease; but however various they may be, no discrimination is necessary in determining on the employment of emetics; provided there is energy enough in the system to withstand their debilitating operation, and there is no particular organic affection.

The superiority of emetics, as remedies in the treatment of convulsions, consists: 1st, *in the facility with which they may be administered;* 2dly, *in the certainty of their operation*; 3dly, *in the speedy manner in which they check the fits*; *and* 4thly, *in their producing, ultimately, no disagreeable effects.* When

opium is employed, either alone or in combination with other medicines, the quantity given is frequently so considerable, that its final consequences, such as drowsiness or stupor, headache, anorexia, &c. often continue for some time after the disease is terminated.

The efficacy of the means, above recommended, for the removal of convulsions, is fully evinced, not only by my own observation, but by the experience of several of my medical friends; some of whom have constantly had recourse to them for years, and uniformly with success. If this practice is more general among physicians than I have a knowledge of, it is singular that we do not find it particularly described in medical books. Practical writers, both ancient and modern, all concur in directing the medicines denominated anti-spasmodics. Some authors, however, incidentally mention the benefit to be derived from emetics; and indeed, a few cases are recorded which show their efficacy. But these seem to be related solely with a view to prove that vomiting will remove convulsions, when they arise from indigested sordes and other irritating matters in the stomach and duodenum. Although it is obvious, that in some instances, convulsions do arise from derangement of the stomach, yet it may be doubted whether all the cases alluded to originated from that cause. These cases may be found in the respective works of Hoffman, Van Swieten, Whytt, Ferriar, and Fothergill. It is here proper to state, that in a paper on the advantages of vomiting in pleurisy, &c. by Dr. Blatchly, published in the Medical Repository, vol. 2, New Series, notice is taken of the utility of emetics in spasmodic diseases. This gentleman appears to be apprised of the fact, that emetics will allay convulsions occasioned by other causes, than offensive matters in the stomach. The following are his words: "In the convulsions of children, I have found no medicine equal to emetics for removing the fits. In epilepsy, I pour down a solution of tartarized antimony; open a vein before it can operate, and then lay an epispastic between the shoulders. The instant the emetic begins to nauseate, and the person vomits, it relaxes and removes the paroxysm; it will even unlock the jaw in

tetanus." The common antimonial emetic is always preferable to any other.

In what manner do emetics produce their good effects? Every pathological student is acquainted with the remarkable *sympathies* which exist between the stomach and the other parts of the body. Sometimes constitutional derangement arises from a primary affection of the stomach, and at others, the stomach becomes disordered in consequence of irritation or morbid action in a distant part. The effects produced on the constitution by the operation of an emetic are, lassitude, anxiety, a sensation of faintness, and great relaxation of every part of the body, but more especially of the muscular fibres. This relaxed condition of the system continues as long as there is any degree of nausea; and probably for some time afterwards. In convulsions, the muscles act involuntarily, and with prodigious violence: convulsive action is, therefore, a state opposite to morbid relaxation; and consequently, when the latter prevails, the former cannot exist. And now, as *morbid relaxation* is the constant result of nausea and vomiting, may we not conclude, that emetics produce their good effects in spasmodic diseases by inducing such a state of the muscular fibres? Surgeons, knowing this effect of emetics, frequently employ them, in order to relax the muscles, which resist the reduction of dislocations.

III. The preceding observations lead us to inquire, whether there is any foundation in nature, for the use of emetics, as anti-spasmodics.

However strenuously some pathologists may combat the doctrine of the *vis medicatrix naturæ*, it must be admitted, that the laws of the animal economy frequently give such a determination to the course of disease, as tends to eventuate in health. The terms *vis medicatrix*, *restorative power of nature*, and their synonyma, well express the operation of these laws; and may therefore be appropriately employed in the subsequent investigation.

We have seen that relaxation is the effect of vomiting, *artificially* excited; and consequently, we are induced to believe

that *sympathetic* vomiting, when it occurs in acute diseases, is designed to relax the whole, or a part of the system, in order to accomplish some particular purpose. The correctness of this opinion may be rendered apparent, by adverting to the nature of those diseases in which sympathetic vomiting is a remarkable, and characteristic symptom.

Jaundice is frequently the consequence of obstruction in the biliary ducts, occasioned by gall stones. When the disease arises from this cause, the symptoms are peculiar and severe : an acute and lancinating pain is felt at the place of the obstruction, and the patient is affected with incessant nausea and vomiting. The ductus communis choledochus does not readily dilate, to enable a calculus to advance towards the duodenum ; but on the contrary, interrupts it by a spasmodic constriction. The vomiting is commonly considered as an effort of nature to dislodge the calculus by violently agitating and compressing the gall-bladder and duct. The chief indication of cure, in the treatment of this disease, is, to remove the spasmodic stricture, and relax the duct : hence it is rational to suppose that should an effort be made by nature, it would be directed to the accomplishment of that intention. If, therefore, the disturbance of the stomach which occurs in this complaint, results from an exertion of the *vis medicatrix*, we cannot avoid concluding, especially when we recollect that vomiting aud relaxation are allied as cause and effect, that nature's real design is to remove constriction and render the duct easily distensible. The duct being relaxed, the mechanical effects of vomiting may prove beneficial.

The vomiting, arising from the irritation of a calculus in the ureter, has ever been regarded as one of the most remarkable sympathetic phenomena that appear in diseases. The ureter is a canal of a muscular structure ; and, therefore, will become spasmodically affected whenever a calculus is lodged in it. The pain in this disease is extremely violent : in the most severe attacks, the concretions are doubtless so large, that considerable dilatation of the canal must take place, before they can descend to the bladder. Here, as in jaundice, the only means which can afford relief, are such as are relax-

ing: accordingly, the remedies universally prescribed, are, venesection, the warm bath, opium, fomentations, &c. Although we are frequently unable to trace the operations of the system to their efficient and final causes; yet, when we see conspicuous phenomena occurring, which seem to have no essential connection with the existing disease, we are inclined to presume that nature is endeavouring to restore the system to health. In the complaint now under consideration, we cannot explain why the stomach is so invariably affected, unless we resort to the *vis medicatrix*. If relaxation of the spasm, and dilatation of the ureter, are required, and if the antecedent views are correct, we can have no hesitation in declaring, that the vomiting proceeds from the exercise of the restorative power of nature.

In like manner, we may account for the vomiting that attends colic and inflammation of the bowels. In both of these diseases, there is always spasms of the intestines; and it is upon this, that the constipation principally depends. In the former, the pain is purely spasmodic; but in the latter, it is the consequence of inflammation, connected with spasm. It cannot be alleged that the vomiting is solely intended to eject offending matters; because it occurs where there is nothing of an irritating quality in the stomach. In general, the first remedies employed in the treatment of colic, are such as are calculated to allay the spasms; and in enteritis, the same means are indicated after reducing the inflammation by bleeding, blistering, &c. If, in these cases, the vomiting is not an effort of nature to relax the spasms, are we not ignorant of the cause of its occurrence?

To what has been said, we may add, that in hernia, so long as the fæces find a ready passage through the protruded intestines, the stomach is not disturbed; but whenever incarceration occurs, which, in effect, is similar to spasm, nausea and vomiting arise, in order, as we presume, to produce that degree of relaxation which is necessary to remove the strangulation.

It may be objected, that if vomiting is designed to produce relaxation, it would generally be adequate to the end. Most

persons practically conversant with diseases, must have seen cases of icterus calculosus which were relieved by spontaneous vomiting. A case of this kind, recently came under my observation, in which it seemed to be evident, that the pain abated in consequence of relaxation of the duct; for, after every fit of vomiting, the pulse, skin, aspect, and feelings of the patient, all indicated a general reduction of the tone and vigor of the system. In some instances, where the calculi are unusually large, or of an angular form, vomiting, by compressing the part affected, may be productive of injury. Such an occurrence, however, does not militate against our hypothesis; it evinces that the constitution, acting according to established laws, attempts to relieve itself, regardless of the dangers that spring from adventitious circumstances.

Whether emetics should be used in cases of calculi of the ureter, as well as in jaundice from biliary concretions, is a question worthy of examination. In both diseases, it is obviously no less important to mitigate the pain, than to relax the parts affected. If emetics be administered, even where there is spontaneous vomiting, considerable time will frequently elapse before the requisite degree of relaxation is produced. When, therefore, it is probable that vomiting will not immediately, or in a short time, relieve the pain, the preference should be given to the usual remedies; more especially, as opium, by its anodyne qualities, will diminish the sensibility of the system, and thereby alleviate the sufferings of the patient.

The pain of colic is rarely increased by vomiting. Cases sometimes occur which are palliated by it, though a cure cannot be expected until the remote causes are removed. In enteritis it is manifestly prejudicial, in consequence of the abdominal parietes compressing the bowels, which are so sensible, that the slightest pressure is intolerable.

Were the operations of the system directed by a discriminating and infallible intelligence, they would never be injurious; but, as this is not the case, they sometimes pursue a course that leads to inevitable destruction. In the instance

before us, to allay the morbid action of the intestines, they aggravate the malady, and hasten the fatal catastrophe.

Fever generally commences with chills, or rigors, a shrinking of the external parts of the body, and constriction of the skin. During the first stage, also, nausea and vomiting are common symptoms, particularly in that form of the disease termed intermittent. If we contemplate for a moment, the sympathy which obtains between the stomach and the surface of the body, we shall be induced to believe that the affection of the former depends upon the state of the latter: indeed, the reasonings of Dr. Cullen in favour of this opinion, appear to be conclusive. This distinguished pathologist remarks: "It is probable, that the vomiting, in the cold stage of fever, is one of the means employed by nature, for restoring the determination to the surface of the body." But, as he previously observes, "that during the cold stage of fever, there seems to be a spasm induced every where on the extremities of the arteries, more especially of those upon the surface of the body," would he not have been more correct, had he said, that the vomiting is designed to relax the spasmodic constriction? That this is truly the intention of nature, seems evident from the fact which he cites from Sydenham, viz. that, in the attack of the plague, a vomiting happens which cannot be overcome until external means are applied to produce sweat; that is, to relax the spasm existing on the surface. This view of the subject affords a happy explanation of the manner in which emetics prove efficacious in intermittents, when administered a short time before the accession of a paroxysm. The vomiting they excite, relaxes the surface and other parts of the system, and thereby prevents the recurrence of the premonitory symptoms.

Vomiting sometimes attends hysteria and epilepsy. May it not, in these cases, be considered as an effort of nature to remove the convulsive paroxysms? Why vomiting should generally occur, when certain parts of the abdominal viscera require relaxation, or are affected with spasm, and only occasionally when the muscles of voluntary motion are convulsed, may be explained, by supposing that, as an effort of the vis

medicatrix, it is more readily and actively excited by morbid action in organs essential to life, than by disease in parts comparatively unimportant.

Hitherto we have noticed the sympathetic vomiting which is the consequence of disease. We shall now investigate the final cause of its occurrence in pregnancy, which cannot be considered a morbid state. This investigation will be the more interesting, as it may illustrate what has already been advanced, and at the same time disclose some views of the animal economy that are novel and important.

It is generally believed that the vomiting with which women are affected, during the first months of utero-gestation, is intended to answer some useful purpose. Some writers consider it as the means instituted by nature for removing, or obviating plethora; the existence of which they imagine might endanger the life of the embryo. Although it is calculated to answer that end, yet we cannot presume this to be the only advantage resulting from it, since we know that simple anorexia is sufficient to reduce, as well as to prevent a fulness of habit.

No sooner is the ovum lodged in the uterus, than this organ begins to enlarge; adapting its capacity to the increasing bulk of the embryo and its involucra. Here, a query presents itself, viz. By what power are the dimensions of the womb thus wonderfully altered? Anatomists inform us, that in the unimpregnated state, its substance is of a compact cellular and muscular nature; the muscular fibres being more clearly seen when the organ is distended. To suppose that the embryo is alone a sufficiently distending power, would be fanciful and nugatory; inasmuch, as it is evident, that, if the womb had not a disposition or aptitude to enlarge, it would expel the ovum as certainly as it does coagula of blood; and how could it be otherwise, since it is a law of muscular parts to contract whenever a distending force is applied to them?*

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* "This distention," says Dr. Denman, "is evidently not mechanical

As the effect of vomiting is relaxation, and as relaxation of the uterus is essentially necessary to enable the ovum to increase in size, may we not infer with the highest probability of truth, that the vomiting of pregnant women is chiefly intended to promote that object. In proof of this conjecture, several arguments may be offered.

In pregnancy there are frequently evident marks of general relaxation; such as pallidness of countenance, emaciation, flaccidity of the flesh, and debility. If these phenomena are produced, either wholly or partially, by the affection of the stomach, the inference is irresistible, that the same cause must diminish the natural firmness of the uterus; and perhapsthe effect on this organ is greater than on any part of the system, on account of its being the source, from which, by the intervention of direct sympathy, arises the affection of the stomach.

The vomiting is sometimes so constant and severe, that medical interference is necessary. Under these circumstances, experience has demonstrated that the remedy, most productive of relief, is blood-letting. It is probable, that the vomiting seldom becomes excessive, unless the uterus distends with difficulty. If this be true, the manner in which venesection proves efficacious is obvious. Diminishing the volume of fluids, aids the operations of nature, or, in other words, so relaxes the uterine parietes, that the vomiting subsides as a matter of course: there being no longer a necessity for its continuance.

Among the signs which indicate the death of the fœtus is, a cessation of the vomiting. This circumstance evinces that the disturbance of the stomach is serviceable in promoting the distension of the womb. The death of the fœtus renders a further enlargement of that organ unnecessary, and the vomiting being no longer useful, ceases.

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from the enlargement of the ovum, but from the accession of a new principle; for the uterus is never fully upon the stretch, like a bladder inflated with air, but relaxed in such a manner as to be apparently capable of bearing the increase of the ovum without inconvenience."

The disappearance of vomiting, before the fourth or fifth month, may perhaps be considered as subversive of the theory advanced. But when we reflect that the womb, at the period of quickening, has lost its original firmness and become lax and yielding, we cannot be surprised that the sickness should subside. It must here be remembered, that we do not contend, that the vomiting is exclusively the cause of the distention of the womb; for, there is, unquestionably, a principle in the economy of generation which causes and regulates its gradual development. During the first months it is presumed that this principle is incapable of producing the requisite degree of laxity; but when this is accomplished by the aid of vomiting, its operation is alone sufficient to effect the subsequent distention.

In some instances, the vomiting continues through the whole course of pregnancy; and in others, after being suspended for a while, it returns. In cases of the former kind, the principle, just mentioned, operates imperfectly, or with deficient energy; and consequently the relaxing power of vomiting remains indispensable: in the latter, the sickness recurs in order to promote the distention, which, from some cause or other, has become difficult.

Vomiting sometimes occurs during the process of parturition. Here, it may be regarded as necessary for the purpose of relaxing the parts which resist the expulsion of the fœtus. The advantage resulting from it has been particularly noticed by Denman. "The power exerted by the uterus," says he, "aided by that of the abdominal muscles and diaphragm, being insufficient for the purpose of dilating the os uteri, or that part becoming unusally irritable by the frequent impressions made upon it; then, by its consent with the stomach, extreme sickness or vomiting is brought on, sometimes after every pain, by which the labour is very much forwarded; one fit of vomiting, according to popular observation, doing more good than several pains."*

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* Introduction to the Practice of Midwifery.

The principles disclosed in the foregoing disquisition, derive a degree of support from the consideration, that no other theory explains, with equal felicity, the design of sympathetic vomiting. Their extensive application, and the practical instruction they afford, strongly recommend them to our confidence. They teach us that emetics are appropriate remedies for spasm.

IV. Besides the spasmodic diseases already mentioned, there are others in which emetics may be advantageously employed. The principal of these I shall briefly notice.

1. *Retention of urine from spasmodic stricture of the urethra* In many instances of this complaint, it is probable that emetics, without the co-operation of other means, will effectually remove the stricture; but should the case be urgent, it may be a more eligible plan to bleed the patient until there is a disposition to syncope; to place him in a warm bath, and at the same time administer the vomit. Should these means fail to procure relief, recourse may then be had to opium, the catheter, bougie, &c.

2. *Puerperal convulsions.* Although depletion by the lancet is requisite in this disorder, especially if the patient be plethoric, yet it is conceived that, if emetics were employed. bleeding, to the extent it is generally carried, would be unnecessary. It may be objected, that an emetic would be a dangerous expedient at, or near the time of parturition. No danger results from the spontaneous vomiting which so frequently occurs during pregnancy and labour; nor do physicians hesitate to prescribe them in the course of gestation; why then should we fear to administer them in cases of puerperal convulsions?

3. *Convulsions of Children.* These, in general, proceed either from difficult teething, or morbid matters in the stomach and bowels; if from the former, we may give an emetic and immediately after divide the gums; if from the latter, a vomit will allay the spasms, cleanse the stomach, and fre-

quently evacuate the bowels; thus removing, at the same time, the disease and its occasional causes.*

4. *Tetanus.* In respect to violence and fatality, tetanus bears the same relation to other spasmodic diseases, that plague does to the milder forms of fever. Notwithstanding its nature has been the subject of much research, it yet remains involved in obscurity; and an uniform mode of treatment has never been established. Whatever view we take of the disease, our object must be to relax the spasms. As we have seen that emetics by their general relaxing operation, are capable of removing the convulsions of hysteria and epilepsy, and have reason to believe that nausea and vomiting are the means employed by nature to relax the muscular fibres, when morbidly contracted, we are induced to conclude, that, in tetanus, the use of emetics is founded on correct principles and may therefore be employed with advantage.

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ART. IV. *Analysis of the Water of the Congress Spring, Saratoga, N. Y.* By JAMES FREEMAN DANA, M.D. Professor of Chemistry in the University of the State of New-York.

THE waters of this celebrated spring have been often made the subject of chemical research. Elaborate analyses of it, and of the other springs in its immediate vicinity, have been given to the public by Dr. STEEL and Dr. MEADE. The former gentleman, residing near the springs, has made his experiments under peculiarly favourable circumstances. The results of the experiments, of different chemists, present some discrepancies, both with regard to the *proportion* of the solid saline ingredients and to their *nature.* It is readily conceived, that the *former* may be variable, and exist in greater or less quantity, according to the season of the year in which the water is taken from the spring, and according to the prevail-

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* Domestic Encyclopedia, Art. Convulsion. Medical Repository, vol. 2, N. S. p. 382.

ing hygrometric state of the atmosphere, whether more or less dry.

The following analysis was made some time since, with a view to increase or diminish the evidence on which is founded the generally received opinion of the nature of the saline contents of the water. The results which have here been obtained tend generally to confirm the truth of the present opinion; an opinion which has been founded on the experiments of several chemists of accuracy and celebrity.

The water, which was the subject of these experiments was brought from the spring in glass bottles, well corked and secured; its solid contents, therefore, were principally the object of examination; the gaseous constituents could not, under such circumstances, be determined with rigid accuracy, and the results given in regard to them are stated, only as approximations to the truth.

The sensible properties of this water are well known; it is perfectly clear and transparent; sparkles briskly when poured from one vessel to another; its taste is saline, with a slight degree of bitterness, and its effects on the system purgative or aperient.

*Of the action of re-agents on the Congress Water.*

1. The tinctures of litmus and Brazil-wood were reddened.
2. The nitrate of silver produces an abundant precipitate.
3. Lime-water produces a copious precipitate, soluble with slight effervescence in muriatic acid.
4. Aqueous ammonia produces also a copious precipitate, soluble in a few drops of acid.
5. Oxalate of ammonia produces a large precipitate.
6. Solution of binacetate of lead throws a precipitate, which is soluble in nitric acid.
7. Barytic water produces a white precipitate, and the same effect is produced also by a solution of chloride of barium (muriate of barytes); both these precipitates are totally soluble in nitric or muriatic acid.
8. Carbonate of potash produces a precipitate soluble in acids.

9. Carbonate of ammonia produces no change, but on the addition of phosphate of soda in Wollaston's method, with due care to guard against any fallacy arising from the presence of lime in the water, a precipitate was produced.
10. Tincture of turmeric was changed to a yellowish brown.
11. Succinnate of ammonia, ferro-cyanate of potash, and tincture of galls, when applied with all due precautions, gave no indications of iron; but it must be remarked, that the portion of the *corks* which had been in contact with the water was discoloured, as from the action of a small quantity of iron.

The water, when boiled, lets fall an abundant deposite. The boiled water gave precipitates on the addition of the following tests, viz.

Nitrate of silver, barytic water, binacetate of lead, chloride of barium, and lime-water. It discoloured turmeric paper, but produced no effect with the other re-agents mentioned above.

From the action of these re-agents it is evident, that the water contains muriatic acid,(2) carbonic acid,(1, 3, 6, 7) lime,(5) magnesia,(9) a trace of iron,(11) and probably some alkaline body,(10) the absence of any sulphate* is proved by experiments,(6 and 7).

### *Analysis of the saline contents of the Congress Water.*

(*a*) One quart (32 fluid ounces) of the water was slowly and carefully evaporated in a glass basin, and thoroughly dried at 160° Farenheit; the solid matter, thus obtained, weighed while warm 158.5 grains. It was white, and effloresced slightly when exposed to the warm air of a room, whose temperature is generally between 60 and 70° F.

(*b*) The solid matter, thus obtained, was digested in warm distilled water, and the whole thrown on a filter and carefully

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* See Cutbush's Analysis of Congress Spring.

edulcorated. The insoluble portion was white, granular, and tasteless.

(*c*) The solution which passed the filter(*b*) was cautiously evaporated; when concentrated, it afforded crystals of chloride of sodium (common salt), and the whole, when dried at 160° F. weighed while warm 113. grains.

(*d*) The solid matter, thus obtained,(*c*) was found to consist of common salt and carbonate of soda; and to separate them, the carbonate of soda was converted into the acetate, by the addition of acetic acid; the acid produced effervescence. The whole was then again dried, powdered and digested in strong alcohol (sp. gr. 810.), filtered, and washed with small portions of alcohol of the same specific gravity. The common salt thus obtained after the action of alcohol, was dried, and weighed while warm 108. grains.

(*e*) The alcoholic solution was evaporated to dryness, and the acetate thus procured was converted again to the carbonate at a red heat in a covered platina crucible; it was dissolved in water, and the solution evaporated, dried at 160° F. and weighed while warm 4.5 grains. The solution of this salt in water gave a slight precipitate by nitrate of silver, indicating a minute quantity of common salt; it may be estimated, without material error, at 0.5 grains. The weights of the carbonate of soda and common salt, thus obtained, is not equal to the weights of the two(*c*) by .5 grain, an error probably arising from a greater portion of water existing in the salt.(*c*)

(*f*) The insoluble matter(*b*) was digested in nitric acid; it dissolved with effervescence; the solution was evaporated to dryness. When it was much concentrated, it became gelatinous; it was constantly stirred until it was quite dry; the dry residuum was moistened with water, thrown on a filter, and carefully and thoroughly washed with distilled water; a quantity of insoluble matter remained on the filter; it was of a darkish gray colour, and gritty; when digested in dilute muriatic acid it became nearly white; before the blow-pipe it was infusible *per se*, but easily fused by the addition of an al-

kali into a glass, having a tinge of yellow. It was, therefore, silex, with a trace of iron. It weighed 1.50 grs.

(*g*) Carbonate of soda was added to the solution (*f*), the liquid was heated to the boiling point, and the precipitate, collected, washed and dried; on examination, it proved to be pure carbonate of lime, and weighed 36. grains.

(*h*) The liquid from which the lime had been separated(*g*) was concentrated by evaporation; the precipitate which then appeared was dissolved in pure sulphuric acid; carbonate of ammonia and phosphate of soda, in Wollaston's method, were added; the precipitate, which was thus produced, weighed when dry and warm 18.20 grs. equivalent to 8 grains of carbonate of magnesia. From the above experiments it appears, that the saline matter afforded by one quart of the Congress water amounts to 158.5 grs.*—consisting of,

| | | |
|---|---|---|
| Chloride of sodium (common salt) | (*d*&*e*) | 108.5 grs. |
| Carbonate of lime | (*g*) | 36.0 |
| Carbonate of magnesia | (*h*) | 8.0 |
| Carbonate of soda | (*e*) | 4.0 |
| Silex, with a trace of iron, | (*f*) | 1.5 |
| | | 158.0 |
| Loss, probably by experiment (*e*), | | .5 |
| | | 158.5 |

*Analysis of the Gaseous contents of the Congress Water.*

The water, from which the gaseous contents were procured, was taken from a bottle which appeared to have been perfectly and accurately corked; its temperature was reduced to 40° F. for the purpose of preventing any loss of gas by pouring it out.

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* By the analysis of Dr. Steel, the water contains, in one quart, 169. grains; according to Dr. Meade, 155.50 grains; and according to an analysis which I made several years ago, 156. grains. These variations are readily explained by reference to the circumstances mentioned above, page 66 of this volume.

One pint of the water, at 40° F. was carefully and expeditiously put into a retort of known capacity, and the gas expelled by boiling, and collected over mercury in the usual manner; the quantity of gas, thus procured, deducting the air in the retort, amounted to 40 cubic inches, when reduced to 60° F. and 30 in. Barometer.* To analyse this gas, a solution of pure potash was introduced to it, and suffered to stand till no farther absorption took place; 39.1 cubic inches were thus absorbed, consisting of carbonic acid gas. To the residual gas, a portion of pure hydrogene was added, and made to act on the oxygene (contained in the atmospheric air from the retort) by a pellet of alumine and spongy platina; the residual gas, after deducting the volume of azote equivalent to the oxygene existing in the air amounted to 0.9 cubic inch, and was azote; the same quantity was deduced by deducting the volume of carbonic acid gas and the air of the retort from the whole volume.

One quart of the water affords, according to the above experiments, 80 cubic inches of gaseous matter at 60° F. and 30 in. Barom. consisting of,

| | |
|---|---|
| Carbonic acid gas - - | 78.2 |
| Azote - - - - | 1.8 |
| | 80.0 |

This volume of gas, as such, probably does not exist in solution in the water; a certain portion of it must have been combined with the lime, to have formed the soluble bi-carbonate of that earth.† Now, 36 grains of carbonate of lime require, to convert them to the bi-carbonate, 15.08 grains of carbonic acid, equal to 32.3 cubic inches of gas *nearly*; this quantity must therefore be deducted from the gaseous *products* of experiment in estimating the true gaseous contents of the water;

* Dr. Steel found 86 cubic inches, and Dr. Meade found 68; but the temperature and pressure of the air is not mentioned.

† Thomson's First Principles of Chemistry, vol. 2d, page 296.

and its equivalent weight must be added to the carbonate of lime in estimating its saline contents.

On this view of the subject, the saline contents will amount to 173.58 grains, and its true gaseous contents to 47.70 cubic inches only in one quart of water, consisting of,

| SALINE. | GRAINS. | GASEOUS. | CUB. IN. |
|---|---|---|---|
| Chloride of sodium (com. salt) | 108.50 | Carbonic acid gas ..... | 45.90 |
| Bi-carbonate of lime ..... | 51.08 | Azote ..... | 1.80 |
| Carbonate of magnesia ..... | 8.00 | | 47.70 |
| Carbonate of soda ..... | 4.00 | | |
| Silex, with a trace of iron.... | 1.50 | | |
| | 173.08 | | |

By the application of parellel reasoning we might infer, that the carbonates of magnesia and soda existed in the state of *bi*-carbonates in the water; and the quantity of uncombined gaseous matter would then be still further reduced. I forbear to pursue this view; for, however true it may be with regard to the lime and the soda, it probably does not apply to the magnesia; there are strong reasons for adopting the opinion that the carbonate of magnesia, obtained by experiment, *did not* exist, as such, in the water, but was *produced* by re-action of the ingredients on each other during the process of evaporation and concentration. Considerations of a purely chemical nature, drawn from a reference to the action of the water on turmeric paper, to the solubility of carbonate of soda, and muriate of magnesia, and to the comparative insolubility of the common salt, and of carbonate of magnesia, as well as from the known operation of the water on the system, lead to the view that the quantity of carbonate of soda existing in the water, is greater than it appears to be by analysis, and that the quantity of common salt is less, and that the magnesia exists in the state of a chloride, (muriate of magnesia.) If this view of the subject be correct, and if the soda, combined with carbonic acid, be in the state of a *bi*-carbonate, then the true saline and gaseous constituents in one quart of water, as it is taken from the spring, will be,

| | |
|---|---|
| Bi-carbonate of lime - - - | 51.080 grains. |
| Bi-carbonate of soda - - - | 18.478 |
| Chloride of sodium (common salt) - | 97.080 |
| Chloride of magnesium (mur. of magnesia) | 9.140 |
| Silex, with a trace of iron - - | 1.500 |
| | 177.278 |
| Uncombined carbonic acid gas - | 36.90 cubic inches. |
| Azote - - - - - - | 1.80 |
| | 38.70 |

The whole quantity of carbonic acid gas, or fixed air, combined and uncombined, in one quart of the water, is 119.5 cubic inches nearly.

The above view of the constitution of this celebrated water, it will be readily perceived, is founded on the profound views of the late Dr. MURRAY respecting saline waters in general; and the supposition, that the carbonates are *bi*-carbonates, readily explains the fact that the water contains and affords such large quantities of gas; quantities, which it is difficult to conceive can be retained in it uncombined, and in a state of ordinary solution.

College of Physicians and Surgeons,
New-York, March 10, 1827.

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ART. V. *Case of Melæna Cruenta.* By SAMUEL WEBBER, M.D. of Charlestown, N. H.

ON Saturday, August 12, 1826, a slender, sickly looking young man, of a dark sallow complexion, called upon me for advice. He complained principally of a severe pain in the left hypochondriac and chondiliac regions, of some days' continuance, and that day more severe than usual. His tongue was covered with yellowish brown fur, and he said that he had, for a day or two previous, been troubled with a slight diarrhœa. Upon examining his side, there appeared to be a fulness about

the left sigmoid flexure of the colon. He said that he had formerly had attacks, beginning in the same way, and terminating in the formation of an abscess in the side which broke internally. His immediate complaint, however, appeared to me rather of a bilious nature, attended with some collection of fœcal matter in the colon.

Under this impression I gave him an active cathartic, to be taken immediately, and followed at night, if any pain remained, with a pill of opium and antimony. He had a good night, and felt so well next morning as to set out on horseback to spend the day with an acquaintance five miles off. While on his way he was overtaken by a shower and became considerably wet; the pain returned and was quite severe by night, when he took another pill of antimony and opium, and passed the night quietly. In the morning, after having had an evacuation from the bowels, the pain again returned with violence, though in a different situation, being now over the pubes and extending back to the sacrum. I was now requested to visit him. The skin was moist, and the pulse but little affected—the tongue was more coated than on Saturday, and the countenance appeared darker. Calomel grs. 8, opium gr. 1, to be followed in four hours with 1½ table-spoonfuls of castor oil, with hot epithems to the bowels. After this he was easy until the operation of the medicine, which was accompanied with intense pain and griping, so long contined as to require an opiate to allay it. There was nothing unusual in the appearance of the stools.

Tuesday morning. A discharge from the bowels with much pain; gave him an anodyne, and when the pain was relieved a dose of pill cochiæ. The skin was very moist, of a yellowish colour, and the tongue greatly furred. He said that it seemed like one of his old attacks, when he had an abscess form and break; but there was no tenderness of the abdomen or side, nor had the fulness of the latter above mentioned increased, though it had not diminished in any perceptible degree. The medicine operated well, though with much pain as before, for which an opiate was again given.

Wednesday. Early in the morning he had an attack of pain, for which his nurse gave him a tea-spoonful of laudanum. I found him quite easy and sweating freely—the skin had a still deeper tint of yellow extending to the conjunctiva of the eyes—the secretions of which were also yellow—the urine was of a deep yellow—the tongue still thickly coated and yellow. A natural and easy discharge from the bowels had taken place after taking the laudanum, which was followed by several others in the course of the day, passed without pain and of a natural appearance.

Thursday. Had passed a good night, but at the time of my visit was labouring under severe pain in the lower part of the bowels. After this had been relieved by an opiate, he had several stools, in the course of the day, of a natural appearance. The tongue, skin, &c. not much different from what they were yesterday. No fulness or uneasiness in the region of the liver, or any pain elsewhere, except occasionally a little in the left side. The patient himself, as well as his friends, still adhere to the belief and assertion that this attack is like those he had before, and that an abscess is collecting which will finally break, and he is very unwilling to take physic.

Friday. Had passed a good night, but I found him in as severe pain as yesterday—10 grs. calomel, 1 gr. of opium, to be followed with castor oil at the expiration of four hours—skin profusely moist, and of a deep yellow shaded with green, as also the eyes—the tears also, as flowing from one of the eyes which was weak, appeared quite yellow. The medicines operated with intense pain about the middle of the afternoon, bringing away a prodigious quantity of offensive matter of a deep dull black colour, and the consistency of soft clay mortar. This, his attendants said, was such as always came from him at the time the abscesses broke. I found, however, that he had been sick at the stomach, and had rejected a small quantity of similar stuff from the mouth. I immediately gave him an emetic, which brought up a copious discharge of black fluid mixed with a little grumous blood. After which, I gave him an ounce of a mixture of equal parts of castor oil and

oil of turpentine. The bowels were freely moved a number of times in the course of the night, the discharges consisting of the same black matter mixed with grumous blood, unaccompanied, as before, with pain.

Saturday. I found the patient free from pain, but with a sense of fulness in the lower part of the bowels. Gave him three small doses of calomel and Dover's powder at intervals of two hours, and then another dose of castor oil and spirits of turpentine. This operated very freely for a number of hours, bringing away stools of the same nature, but with a larger mixture of blood, all of which, however, appeared black and granular, and did not mix with the urine unless the vessel was shaken.

Though the patient's pulse was still firm and good, yet, as he appeared somewhat exhausted by the frequency of the evacuations which seemed disposed to continue without abatement, I thought it best to make use of some astringent to check the hæmorrhage and restrain the frequency of the motions. For this purpose I gave him a small injection of cold milk and water with a drachm of laudanum, and small doses of sulphate of copper in solution, repeated at short intervals. These means, after the lapse of three or four hours, not producing much effect, I gave him acetate of lead 3 grs. opium 1 gr. to be repeated at intervals of from three to six hours, as the exigency of the case might require; and directed wine and water, with toast, to be given occasionally, in small quantities.

Sunday. In the morning found the patient quite easy, the evacuations had abated considerably in frequency, though the nature of them remained the same. Four doses of the acetate of lead and opium had been taken in the course of the night, and considerable quiet sleep had been procured in the intervals. The same treatment was continued through the day, in the course of which there were five evacuations from the bowels, very black in colour, but not quite so bloody. Finding, however, that the tongue and mouth were much blacked by the acetate of lead, and thinking that the colour of the stools might be affected by the same cause, I substitu-

ted mimosa catechu in room of the acetate, in doses of one scruple of the powder, to be given at similar intervals of time. During this day the tint of the skin had become much lighter and the sweating was not so profuse.

Monday. The patient had rested well, and had no discharge from the bowels since midnight. Three doses of the catechu had been taken. This was now discontinued, as also the wine, the skin being more dry and hot, and the pulse more frequent. A small blister was applied over the stomach, and three small doses of Dover's powder (about 4 grs. each) were given in the course of the day. Several evacuations from the bowels took place, at first dark, but gradually becoming lighter and of a better consistency till by night they had resumed their natural and healthy appearance. At night, after the last evacuation, he had a severe colic turn, which, after two or three vain attempts to give an injection, rendered abortive by the bearing down of the bowels so as to force the injection by the piston of the syringe, was quieted by several free doses of laudanum. After this time no further trouble occurred. The bowels were kept soluble by a gentle dose or two of sulphate of magnesia. The tongue rapidly became clean, and the skin assumed its natural or rather its usual colour; a slight soreness of the mouth, which had been occasioned by the calomel, disappeared, so that by the next Sunday all appearances of disease were gone, and the patient was able to go out and take such exercise as his strength would permit.

This case seemed to be one of melæna cruenta, according to Good's nomenclature; but differed from his definition, in having pain in the left hypochondrium only instead of both, and in wanting the pain in the stomach and vomiting, except at the time when the emetic was administered, by which these symptoms were immediately relieved and did not return again. There was, likewise, no tenderness in the hypochondria; and after the medical treatment began, the pain was mostly referred to the region of the pubes, extending back to the middle of the sacrum. The patient experienced his first attack of this com-

plaint about twelve years ago, and nearly lost his life by it; he did not, indeed, recover a comfortable state of health for several years, and has since, two or three times, had it recur, though much more lightly. In these previous attacks, he had usually been attended by an old physician, since dead, of high reputation for skill, who pronounced the complaint to be an internal abscess, a circumstance which, at first, perplexed me very much, as I could not reconcile the symptoms with the supposed disease; and occasioned still more trouble in the remedial treatment, as the patient and his family were of the lower class of people, ignorant and very much prejudiced, and unwilling to do any thing but what had been done before, which consisted in quieting the pain by opium, and occasionally procuring a motion by a dose of calomel, assisted by injections. In consequence of this, I found much difficulty in prevailing on the patient to take so much medicine as I have specified above, though an earlier exhibition of an emetic, and more powerful cathartics at first, would probably have shortened the duration of the disease.

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ART. VI. *An account of two Cases of foreign Bodies lodged in the Trachea.* By Dr. ENOS BARNES, of Yates County, New-York.

CASE 1. This was the case of a child aged seventeen months. In attempting to remove from its mouth, a parcel of shrunk beans and gravel stones, which it had just then introduced, it fell backwards; by which means a portion of them were forced into the trachea; but in consequence of violent coughing, during which several beans as well as gravel stones were coughed up, and soon afterwards becoming quite easy, the parents became satisfied that no more remained there.

At times, however, it had severe coughing, though, most of the time, it was a short, dry, hacking cough; was occasionally restless, and had considerable fever; which induced the

parents to call a physician, not on account of the accident which had happened, but because it was supposed to be *troubled with worms.*

I saw it for the first time on the fourth of June last, eight days after the accident. After hearing a history of the case, (the choking with the beans, &c., by the by, was only referred to for the purpose of dating the commencement of what they called the worm fever and cough,) I expressed my fears that there yet remained some irritating substance in the trachea, and stated to the parents the necessity of an operation for its removal. To this they were strongly opposed, believing it to be a case of worms merely; and to gratify, or rather to convince them that worms were not the real cause of the difficulty, I prescribed anthelmintics.

I called again soon after, more strongly convinced than ever of the real cause of the complaint; but with no better success than before in convincing the parents of the propriety of an operation. I then declined doing any thing further for the child, unless permitted to remove the difficulty in the only practicable way.

I did not see the patient again until the 26th of July, by which time it had become reduced to extreme debility, and very much emaciated. Its parents were then willing, for the first time, that an operation should be performed. The situation of the child, however, rendered it so extremely doubtful whether it would live, even if the operation should be performed, that I confess I hesitated. But, what could I do? I had said some extraneous body was in the trachea, and that an operation was necessary. The correctness of my judgment had been questioned. In addition to which, the child must die in a very short time, if left unassisted. I at length determined to perform it. The operation need not be described.

On making the incision in the trachea, nothing was brought to view, as is usually expected in such cases; nor could any thing be felt with the finger; but, on turning the child with its face downwards, a gravel stone was discharged and fell on the floor. As an act of prudence I deemed it necessary to

leave the incision open a few days, in order to facilitate the escape of any extraneous particles, which, possibly, might be left there. The propriety of this course was soon made apparent, for, the next day, there was a copious discharge of matter from the lungs, which, from the description given of it by the attendants, must have been pus; enveloped in which were several pieces of bean, and the skin of one almost entire. The wound was then closed, and the recovery of the child to good health was rapid beyond my most sanguine expectations.

A few of the circumstances of this case are entitled, perhaps, to some consideration. Here was an interval of 58 days between the time of swallowing the foreign bodies and the performance of the operation; during which, few symptoms took place which might not, with a good deal of propriety, be supposed to exist in a case of worms. There was, to be sure, that peculiar sound in the voice which could hardly be mistaken, and on which I placed much of my dependence in determining the nature of the disease. I would not, however, wish to be understood to believe, that a similar peculiarity might not take place under other circumstances, such as croup, &c.; but that this, in connection with the other attending symptoms and circumstances, were sufficient to determine the real nature of the case.

From this case it would appear, too, that notwithstanding the great length of time which elapsed before the operation was performed, and the great emaciation and debility which were the consequence, operations, even under prospects apparently hopeless, might be performed with success. Again, is it not probable that children, especially infants, who have so strong an inclination to put into their mouths every thing which comes in their way, may often have small substances forced into the trachea, which, should they be carried low down, would excite no very alarming symptoms at first; but would produce the short, dry, hacking cough, fever, &c. The child is then supposed to be troubled with worms, and is subjected to a course of anthelmintics, which, of course, would give no

relief; the case is pronounced incurable, and death closes the scene.

I cannot suppose discerning men would often be deceived in this way. But the circumstances attending this case, induce me to think it by no means improbable that it might sometimes be the case.

Case 2. In the preceding case my principal object was to draw attention to the fact, that hard bodies in that tube were presumed, sometimes, to give rise to symptoms similar to those of worms; and thereby deceive the practitioner, and cause the death of the patient, by omitting an operation which affords the only reasonable ground for success. The following case, drawn up by Dr. Henry Spence, at my request, affords a corroborating testimony in favour of the opinion which I there hazarded.

"On the 7th April, 1825, a child of Mr. H. two years old, was supposed to have accidentally let a large sewing thimble, lined with copper, pass from the mouth into the fauces. Mr. H. being present and alarmed at the accident, thrust his finger down the larynx of the child, in order to extract it, but without effect.

"Some irritation and coughing ensued, but soon subsided. The child continued its amusements undisturbed the remainder of the day, and slept quietly during the night.

"No surgical aid was had until the 8th, when I saw the child. It being so perfectly calm and free from irritation, I was induced to believe that some mistake might have happened with regard to the lodging of the thimble in the trachea; or perhaps it had passed into the stomach. They informed me the child had exhibited some symptoms of worms previous to this accident, and supposed nothing but worms now caused its illness. I accordingly ordered a decoction of Carolina pink-root, followed by a brisk cathartic. Some few worms were discharged. The patient now grew more restless and uneasy; some swelling and inflammation in the soft palate

commenced, together with an increased discharge of mucus from the nose, mingled occasionally with blood.

"A surgeon of eminence in the vicinity was called, who made an examination with a flexible catheter, and supposed he felt the thimble in the œsophagus and had thrust it down into the stomach. The same symptoms, however, continued, together with an increased discharge from the nose, much starting while asleep, and occasional vomiting and purging. Active emetics and cathartics were now given, but without any permanent benefit. The mucus discharged from the nose now became, occasionally, mixed with blood and small particles resembling black oxide of iron; the appetite failed, and there was a difficulty of breathing, particularly when asleep.

"In this condition she remained for *three months*; at the expiration of which time I came to the determination of making a thorough search for these difficulties. For this purpose I directed an attendant to grasp the head of the child with firmness, and to incline it a little backwards—another to force the jaws far apart, and to introduce a pine stick to prevent their being brought together; at the same time confining the arms and body of the child with much care. I then introduced a long probe, a little curved, and but a short distance behind the velum pendulum palati I evidently felt something of a solid nature. I then withdrew the probe and introduced a long curved pair of forceps, with which I cautiously seized what proved to be the thimble, and endeavoured to extract it, but it was firmly fixed, and resisted considerable force. By pulling in various directions, however, it at length yielded, and came out, to the great joy of the parents and friends.—Considerable hæmorrhage followed, but soon subsided, and the child speedily recovered.

"I have only to remark from the history of this case, that there seems to exist a strong and reciprocal sympathy between the larynx and stomach. When the stomach is actually irritated by the presence of worms, or other causes, the nose is frequently affected with an itching sensation—vomiting, purging, convulsive starting in sleep, &c. All these symptoms pre-

vailed in the foregoing case, particularly the first named, which was quite troublesome.

"I have conjectured it might arise from a sympathetic as well as an actual irritation of the stomach; and when the above symptoms do appear, we are not always justifiable in directing our engines of death against the inhabitants of the stomach. This case ought, perhaps, also to admonish us, that the symptoms in cases of worms, and those attending an actual irritation of the fauces from the lodgment of an offending substance in the trachea, are quite similar; and if we have reasonable grounds for suspecting the latter to be the case, we should search with diligence for the extraneous matter, notwithstanding the resistance of the patient and the remonstrance of friends."

Although Dr. Spence succeeded, in the above case, in removing the difficulty without opening the trachea, yet it was undoubtedly owing to the high situation in which the thimble lodged. There is a similarity between this case and the first, in regard to the extraordinary length of time that elapsed between the lodging of the thimble and the extraction; and that during this time, or the most part of it, it was conjectured that *worms* were the principal cause of the difficulty.

It was believed the thimble had been pushed into the stomach, and that it had probably passed through the child, without its being known to any of the family. Very few indeed had any suspicion of its remaining in the trachea. How necessary, then, is a more careful examination of all such cases! Infants when first beginning to totter about, having an instinctive disposition to put into their mouths almost every thing they lay their hands on, do very frequently, I am convinced, get small substances forced into the trachea, either by falls or sudden crying, or both, and lodging in some place, perhaps pretty high up, which will not produce any immediately alarming symptoms, but a wasting and pining away; and the child is said to die of worms, or consumption—no one knows which.

ART. VII. *Observations no Introsusception as connected with Hydrocephalus Internus, with the History of a Case.* By CHARLES A. LEE, M.D. New-York.

THERE is no stage or period of human life in which art proves so often ineffiaccious as that of infancy. The nature, seat, and causes of disease are frequently veiled in obscurity, and it requires the closest investigation, aided by experience and habits of nice observation, to enable us to form a correct diagnosis, and to manage its complaints successfully. The difficulty of this part of practice deters many practitioners, it is feared, from bestowing on it that study and reflection which its importance demands; hence their practice is but a continued routine of ignorance and empiricism. Whatever may be the nature of the disease, the same remedy is invariably prescribed; and if the result is unsuccessful, they shield themselves under the pretence of the peculiar difficulty and necessary fatality of the case. When we consider the vast proportion of mankind that perish in infancy, we are naturally led to seek for the cause, and to inquire whether it springs entirely from the nature of infantile complaints, or whether it may not be attributed, in some measure, to ignorance and malpractice? However this question may be decided, the fact, that infants cannot communicate their sensations by language, instead of serving as an excuse for neglecting this department of our art, ought rather to stimulate to greater diligence. The period is not far remote when it was common, even among medical writers, to assert, that the diseases of infants could not be recognised, and therefore, that they were beyond the *pale* of medical skill. In accordance with such belief, the little sufferers were committed to the charge of old women and nurses, and thus fell victims to ignorance and quackery, as though their existence was not worth prolonging. But it is now too late for such sentiments to be advanced; and though a change of opinion on this subject has been effected within a few years, still that importance is not attached to it which it justly merits. Even in our medical schools, which

have done and are still doing so much for the promotion of medical science in our country, the diseases of children, which may be said to constitute a majority of all which require the interposition of art, are either wholly neglected or are treated in a very cursory and superficial manner.

It is asserted by some, that the symptoms which indicate the nature and seat of infantile diseases are more uniform in their appearance and more certain in their indications than those of the adult; that the signs of irritation, at this tender period, when the system is unaccustomed to the influence of external agents, manifest themselves in the same manner, whether that irritation be caused by worms, teething, or acrid *ingesta*; that there will be the same inquietude, tossing of the hands, contraction of the features, heat, starting in sleep, vomiting—hurried, irritable pulse, &c. But even granting the disease to be one of irritation, is not a knowledge of the *cause* likewise necessary to guide our treatment, and enable us to apply proper remedial agents for its removal!

The above remarks have been suggested by the following case, which I present, hoping that it may throw some light upon introsusception and hydrocephalus, and prove that these diseases may originate from sympathetic irritation.

Case. On the 20th Dec. I was requested to visit a child, about four months old. I found her in convulsions, which occurred every few minutes—no fever—pulse imperceptible—respiration quick, and at times laborious—countenance pallid and sunken, with a peculiar transparency of the eye-lids—the abdomen was but little tumefied, and not painful as could be perceived on pressure. But little satisfactory information could be obtained respecting the previous history of the case. The parents said the child had not been well for two or three weeks—had frequent fits of screaming—was very restless—started in sleep—supposed she had worms. No medicine of any kind had been administered. I directed a calomel cathartic, and an enema, which came away immediately, bringing with it a small quantity of dark-coloured fæcal matter. There had been some vomiting, but at present there were no signs of

gastric irritation. A warm bath was ordered to be prepared, and sinapisms to be applied to the feet.

Evening. No material alteration—small quantities of a viscid slime of a whitish colour, streaked with blood, had been discharged. The pupil of the right eye was much dilated, while that of the other was almost closed. Blisters were ordered behind the ears, together with a repetition of the calomel and warm bath. The child, however, soon fell into a comatose state and died during the night.

*Dissection.*—The following day I examined the body, assisted by Dr. E. W. Cleaveland. On removing the cranium, the vessels of the dura mater were turgid with blood, likewise the longitudinal sinus; the vessels of the pia mater, especially the plexus choroides, were filled, resembling a finely injected arterial preparation. The lateral ventricles were full of water, so as to elevate the *fornix* and open a communication between them through the *septum lucidum.*

On laying open the cavity of the abdomen and elevating the large intestines, extensive marks of inflammation presented, together with a series of introsusceptions in the jejunum and ileum. There were at least six or seven of these *involutions*, the involuted part being from one to three inches in length. The intestine was nearly closed at the *invaginated* parts, from a contraction of the muscular coat and a scirrhous-like thickening of the intermediate cellular membrane. Indeed, in one place, the cavity was so nearly obliterated as scarcely to admit a common sized probe. The remaining abdominal viscera, except the kidneys, exhibited a natural appearance. These were of an uncommon size, and on cutting into them a quantity of purulent matter escaped from several cysts which were connected with the urinary *tubuli.* The vessels of the duplicature of the peritoneum, which covers the kidneys, were filled with blood.

Such were the appearances on dissection. Were we better acquainted with the early symptoms and history of this case, we might more satisfactorily trace the successive links in the

morbid chain, and arrive at more certain results. It is more than probable, however, that the kidneys were primarily affected, the disease extending from thence to the intestines, and lastly, by sympathy, to the *brain*. It wants no laboured investigation to show that there exists an intimate connection between the mucous membrane of the alimentary canal and the brain, and that any cause which produces irritation in the former, is liable to induce inflammation in the latter. The following proposition of Broussais, contained in his "*Examen des Doctrines Medicales*," though no new doctrine, is, however, worthy of particular notice, as it has an important bearing on this subject. "An extreme suffering, whether from inflammation of an organ or from the irritation of the branch of a nerve, or from a moral cause, engorges the brain and tends to produce an inflammation either of the cerebral substance, or of the *pia mater*, or of the arachnoid membrane." This fact may perhaps serve, in some measure, to explain the frequency of hydrocephalic symptoms, which are almost invariably merely symptomatic of intestinal irritation. We shall not here stop to inquire whether the converse of the above proposition hold true, viz. "that inflammation of the brain will always produce that of the digestive passages." This subject may, perhaps, be resumed at some future time. It may, however, be truly said of the brain as of the heart,—"omnibus dat, et ab omnibus accipit."

An interesting case of introsusception is detailed by Dr. Harlan in the 9th vol. of the Eclectic Repertory and Analytical Review. In this case a part of the ileum, the whole of the cœcum, and a portion of the colon, were received into the remaining portion of the colon, and the cœcum protruded from the rectum; and, what is worthy of notice, adhesions had formed between the involuted portions, so that the connections could not be separated without laceration. In this case, likewise, water was found in the ventricles of the brain.

Another similar case is given in the 6th vol. of the Medical Recorder, communicated by Dr. Thomas, of Pennsylvania. In this instance the introsusception was caused by a numerous collection of *lumbricoid worms*, which had occasioned exten-

sive irritation and inflammation. The brain was not examined.

Dr. Good considers introsusception as produced by an inversion of peristaltic action, accompanied by spasms of the abdominal muscles, constituting the disease which he terms *colica ileus*, or *iliac passion*. He does not say, that this disease is always attended with *introsusception*, but his remarks lead us to infer that introsusception invariably gives rise to the symptoms which distinguish *ileus*. In the case which I have reported, however, there was none of that violent griping pain, retraction of the navel, &c. which characterise this species of colic. Dr. Thomas' case proves, that the disease may be caused by *worms*, as in mine it was by *nephritis*.

There is some difficulty in explaining satisfactorily how such involutions take place. That air is *secreted* or extricated into the intestinal tube where its coats are weakened, causing abdominal distention, is undisputed. It is likewise reasonable to suppose that one portion of the intestine may, from an irritating cause, be excited to inordinate contraction, while another adjoining portion is as much distended. Now, if we suppose an inversion of peristaltic action to take place from the rectum to the stomach, it is easy to see that, while the contents of the expanded portion are forced upwards, the collapsed part, either retaining its situation or sliding downwards, an introsusception will be produced. It is a circumstance worthy of notice, in this disease, that the *upper portion* is always received into the *lower*.

It is believed that there are *few* if *any* unequivocal diagnostic symptoms of this affection. In all diseases of children, where we meet with obstinate costiveness, or a discharge of *a whitish mucus streaked with blood*, vomiting of a greenish fluid accompanied with the usual signs of irritation, we should be led to suspect the existence of introsusception. In the latter stage of it, the symptoms of hydrocephalus will uniformly be present. The symptoms, however, will vary somewhat as the large or small intestines are affected.

*Treatment.*—But little can be said respecting the treatment. The disease, when fully formed, is for the most part beyond

the reach of art; and the remedial means resorted to in most cases, are rather calculated to increase than remove the difficulty. Such is the effect of powerful cathartics which often bring on the disease, especially in children of a leuco-phlegmatic temperament, who may be said to be predisposed to it. It is obvious, that cathartics, which promote peristaltic action, can only increase the introsusception. Mercury, in its metallic state, has been resorted to in such cases; but I am not aware that much success has attended the practice. Our chief dependence should be upon the warm bath—bleeding, general and local—together with enemata of a demulcent and relaxing nature. In the latter stage, when symptoms of *hydrocephalus* supervene, our treatment should be modified by the supervening disease.

Perhaps it may not be considered irrelevant to the present subject to offer a few remarks on the long agitated question respecting the true proximate cause of hydrocephalus internus. While some writers refer it to what they please to term increased arterial action, or that state of the cerebral vessels which exists in acute phrenitis—others place it in *a tonic* state of the same vessels, or that laxity which leads to serous effusion. Again; others assert, that it consists in a debility of the lymphatic or venous absorbents, and that as serous exhalation is constantly going forward in every part of the system; of course, if those vessels, destined for its removal, lose their action, from any cause, the watery fluid will be accumulated.

It is believed, that the phenomena attending this affection can best be explained by adopting the last theory; as it has been abundantly proved by various physiologists that the veins are absorbents, it is obvious that a debility or suspension of action in these vessels will occasion the same result, and therefore should be considered in our investigation of the proximate cause of this disease: and here we might resort to analogical reasoning, and refer to hydropic affections in other parts of the body. No one, it is presumed, will affirm that ascites, or anasarca, or ordinary hydrothorax, are preceded or attended with inflammatory symptoms; on the con-

trary, they are universally regarded as diseases of debility, and their *therapeia* is based on this view of their proximate cause. To remove the accumulated fluid is merely the first step in the curative process; and the practitioner who should dismiss his patient, without first prescribing such remedies as are calculated to give energy and *tonicity* to the absorbent system, would be justly chargeable with the grossest ignorance of therapeutic principles.

We are aware that hydrothorax sometimes supervenes on inflammatory pulmonic affections. In such cases the absorbents cannot act with sufficient energy to remove the effused fluid, and the patient dies from suffocation. Even here, however, we have reason to believe that the pulmonary vessels are in an atonic state. Mere *over-distention*, as well as long-continued action, destroys the function of an organ, as we see in retention of urine from an undue dilation of the urinary bladder. For a while the *sphincter vesicæ* obstinately contracts, but this is eventually succeeded by an involuntary relaxation. So in all acute affections there is, at first, a paucity, or even a total absence of the secretions and a constricted* state of the extreme vessels, but this is followed by spontaneous relaxation and critical evacuation.

Again; febrile action sometimes supervenes upon hydropic attacks; but as the cause ought to precede the effect, such cases cannot be considered as militating against the theory I am endeavouring to support.

To apply this theory to the case above detailed. The cerebral vessels were injected with blood. The common inference would be, this has been caused by inflammation. But it is far from being a settled principle in pathology, that wherever in our *post mortem* researches we find local *venous congestion*, that this has been occasioned by increased *arterial* action. If it were, we must believe that in cases of death from drowning, hanging, or breathing deleterious gases, because the vessels of the brain are loaded with blood, that there has consequently been inflammatory excitement.

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* See Parks' Physiology.

An accumulation of blood in the veins may arise from various causes. It may be a ligature, a tumour, impeded respiration, or cessation of the heart's action, &c.—also, any thing which debilitates or weakens the texture of the venous coats, will tend to engorge them with blood. Hence we find in fevers that in proportion as an organ is debilitated, in the same ratio it is exposed to venous congestion. Considering the veins then as the only cerebral absorbents, it need not be remarked that, if obstructed by any cause, they will cease to imbibe or absorb fluids exhaled at their extremities, and a serous accumulation must follow.

To those, however, whose creed admits lymphatics in the brain, it may be remarked, that their absorbent action in such cases may be interrupted by the mechanical pressure of the distended veins; and those who attribute all the phenomena of disease to nervous influence, may bring in sympathy to aid in producing the same effect.

Those who are conversant with dissections are well acquainted with the fact, that the ventricles of the brain generally contain a greater or less quantity of serosity. The cause is obvious. The balance between the absorbent and exhalent vessels is lost; the former, from a loss of tonicity, permit a transudation of the thin parts of the blood, while the latter have lost their power of imbibition, this being always a function of vitality and controlled by the vital laws.

The remedies which have been found most successful in this disease, it is believed, will not militate against the above theory as to the proximate cause. Blood-letting, to relieve venous congestion—warm bath and perspirations, to equalize circulation—and cathartics, as *revellents* from the brain to the intestinal tube.

ART. VIII. *Notice and Chemical Examination of the Mineral Water recently discovered in the City of Albany.* By Professor L. C. BECK.

(Read before the Albany Institute, March 8, 1827.)

Mr. DISBROW's method of boring for water through rock strata has been for some time before the public. His ingenuity is deserving of the highest commendation; and though he may be too sanguine in his views, he has undoubtedly furnished us with the means of exploring the interior of our globe at an easier and cheaper rate than has heretofore been known.

In our own city the experiment has led to the most interesting results. Convinced of the great value of pure water, Messrs. Boyd & M'Cullock, the enterprising proprietors of one of our most extensive breweries, entered into the views of Mr. Disbrow, and commenced boring upon his plan in the month of May, 1826. This operation they have continued until the present time, having descended nearly 500 feet. They have not, it is true, yet obtained the object of their search; but they have met with a mineral water, which promises to be of more benefit and of greater value.

I may remark, that the whole of this excavation, or *boring*, passes through the argillite or slate rock, and that the fragments which have been brought up from the depth of 500 feet, differ but little from those obtained near the surface. It would seem, however, that at this place it is crossed by fissures, which send forth some of the combustible gases. When the workmen had descended to the distance of 250 feet from the surface, a stream of gas issued from the *boring*, which was found to be of this nature; the emission of which, in variable quantities, has ever since continued. This gas is now under examination by my friend, Professor HENRY, whose experiments will shortly be communicated to the Institute.

My chief object in this communication is to present a chemical examination of the water, before referred to, and which, in consequence of its great resemblance to the most esteemed

Spa waters, has excited considerable interest. It was first observed at the depth of 480 feet below the surface, when its sparkling appearance and peculiar taste attracted the attention of those who were engaged in working the machinery. It was supposed, also, that the water contained a combustible gas. But it is probable that whatever of this kind of gas was observed, was imbibed on its passage through the above mentioned stream, and was given out as soon as it rose to the surface. At all events, none could be detected in the bottles which were obtained for experiment and analysis.

Through the politeness of the proprietors of this brewery several bottles were filled with this water and carefully closed. Upon drawing the corks lighted tapers were immediately introduced, but they were not extinguished, neither was any combustion produced.

The specific gravity was taken with the utmost care, and found to be to that of distilled water as 1009. to 1000; which, according to the formula of Kirwan, indicated 12.6 grs. of saline matter in 1000 grs. of the water. The weight was so near to that of the waters of Saratoga, and the taste and appearance so similar, as to afford a guide in its further examination.

The following tests or re-agents were now applied to portions of the water, with the results noted.

1. A clean piece of *silver* was not altered in its appearance by immersion in it.

2. *Tincture* of *litmus* was slightly *reddened*. It may be remarked, however, that the time consumed in bringing the water to the surface was so great as to allow the escape of much of the free carbonic acid.

3. *Lime water* produced an instant milkiness, and after a short time a precipitate.

4. *Turmeric papers*, of a fine gamboge yellow, were changed to a deep orange. The change, however, was not so striking as that affected by the pure alkalies.

5. *Nitrate of silver* produced a very copious white precipitate.

6. *Oxalate of ammonia* caused a cloudiness and slight precipitate.

7. *Muriate of Barytes* did not disturb the transparency of the fluid.

8. *Tincture of galls* produced a brown colour, which upon exposure changed to black.

9. The *ammonio-phosphate of soda* caused a white precipitate.

A portion of the water, after having been boiled and again allowed to become clear, was submitted to the above experiments with the same results, except in the case of the lime water and the tincture of galls, which did not now produce the least change.

From the above experiments, I inferred the presence of,

Carbonic acid,
Muriatic acid,
Lime,
Magnesia,
Iron, and an
Alkaline carbonate.

And the last experiment convinced me the iron existed in the state of a carbonate.

For the purpose of ascertaining the proportions of these ingredients, I employed the following processes.

*A.* Eight measured ounces, or a half pint of the water, which had been found to weigh 3673 grains, and to contain 14.4 cubic inches, were put into a shallow earthen vessel, and afterwards placed in a sand-bath, the temperature of which did not exceed 150° of Fareinheit. The liquor soon became turbid, gradually deposited a precipitate, and at the end of some hours was again perfectly transparent. The clear liquor was now carefully removed by means of a syphon to another vessel. The precipitate was repeatedly washed with distilled water, and the washings, when clear, drawn off and transferred as before; after which it was dried and found to weigh 1.5 grains. This was dissolved with effervescence in dilute sulphuric acid. The solution produced a deep black with galls, and was not affected by the tests for lime or mag-

nesia. We may therefore, conclude, that it consisted wholly of carbonate of iron.

The remaining liquor was now evaporated down at the same heat to dryness; and the residuum being well dried, was found to amount to 39 grains, which, with the 1.5 grains of carbonate gave 40.5 grains of saline matter in a half-pint of the water.

*B.* The residuum, consisting of the 39 grains, was now exposed to the air for 24 hours, but its weight was not increased neither was there any sensible moisture produced. From which I concluded that there could not be present any earthy muriates. This fact was further proved by submitting it for some time to the action of pure alcohol, which, upon evaporation, did not yield any appreciable amount of saline matter.

*C.* The whole saline matter was next submitted to the action of distilled water for 12 hours; after which, the clear liquor was carefully decanted. This, when evaporated, shot for the most part into cubic crystals; and the whole, when dried, weighed 34 grains.

*D.* As the change of colour in the turmeric papers had satisfied me of the existence of an alkaline carbonate, it was of course taken up by the water and was contained in the product just mentioned. For the purpose of ascertaining its nature and amount, I subjected the whole 34 grains to the action of acetic acid. Considerable effervescence was excited; and after it ceased, it was again dried, and then submitted to the action of alcohol for several hours. The spirit being removed to a glass capsule, was evaporated, and the residue again digested in a fresh portion of the alcohol, and again removed. Upon evaporation, a crop of small slender crystals was obtained, which amounted to four grains. They effloresced somewhat upon exposure to the air, and therefore consisted of acetate of soda, obtained by the decomposition of the carbonate by means of the acetic acid. This being converted into a carbonate by heat, weighed 2.5 grains, which is, of consequence, the amount of the latter salt.

*E.* The remaining 31.5 grains, not affected by the alcohol, were found to consist wholly of muriate of soda, as proved by the following trials.

1. Sulphuric acid, poured upon a portion of the dry salt, produces copious fumes of muriatic acid.

2. To a solution of another portion nitrate of silver was added, which produced a dense precipitate. Other portions were also tested with oxalate of ammonia, but no change was effected.

*F.* The residue not dissolved by the water, when dried, weighed 5 grains, and was wholly dissolved with effervescence by acetic acid. Diluted sulphuric acid was now added drop by drop until precipitation ceased. This precipitate, consisting of sulphate of lime, weighed, when dry, 2.7 grains, equivalent to 2 grains of the carbonate. The remainder being thrown down by the ammonio-phosphate of soda, was magnesia, which had been combined with carbonic acid.

To ascertain the amount of carbonic acid, I put half a pint of the water into a retort, previously measured and graduated with care. I then boiled it for fifteen or twenty minutes, and collected the air which escaped in a graduated receiver over warm water. After deducting the amount of atmospheric air contained in the beak of the retort, there was remaining 14 cubic inches of gas, which was found to be carbonic acid. It should be remarked, however, that the water which was submitted to experiment had been taken up more than a week previous, and of course must have lost some of its carbonic acid. Moreover, the apparatus which I employed, although the best within my reach, was not unexceptionable. We may safely assert, that this water, when recently obtained, contains more than its own bulk of carbonic acid.*

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* According to the analysis of Professor DANA, the Congress Water contains, in a pint, 78 grains of solid matter, which is somewhat less than the above.—See New-England Journal, vol. 6.

Half a pint of this water contains, therefore, 14. cubic inches of carbonic acid, and 40.5 grains of saline matter, as follows :

| | |
|---|---|
| Muriate of soda, - - | 31.5 |
| Carbonate of soda, - - | 2.5 |
| Carbonate of lime, - - | 2.0 |
| Carbonate of magnesia, - | 3.0 |
| Carbonate of iron, - - | 1.5 |
| | 40.5 |

Upon comparing the above results with the analysis of various springs at Saratoga, it appears, that the water under examination does not essentially differ from them. The quantity of salts in the latter is nearly as great as that in the Congress waters, which are decidedly preferable to those of any of the springs at Saratoga or Ballston. According to Dr. Steel, the amount of saline matter in a gallon of this water is 676 grains, and of carbonic acid 343 cubic inches ; and if the above analysis be correct, the present water contains, in the same quantity, 648 grains of these salts, and upwards of 230 inches of carbonic acid.

The chief difference of the Albany water consists in the smaller proportion of carbonates of lime, which does not amount to more than five per cent. of all the solid matter, whereas in the Saratoga waters it sometimes exceeds thirty, and is seldom less than twenty per cent. This deficiency, however, is made up by the greater proportion of the other ingredients which, perhaps, give additional value to this water. Upon the whole, I hazard nothing in the assertion, that if a supply of it can be obtained, Albany may congratulate herself upon possessing a production which will, at least, rival the celebrated waters of Ballston and Saratoga, and to which the valetudinarian may resort with the same high hopes and flattering prospects.

ART. IX. *Account of the Galvanic Experiments performed on William Hill, who was executed at Ellis's Island, Dec. 15th, 1826.* By JOHN R. RHINELANDER, M.D. Demonstrator of Anatomy in the College of Physicians and Surgeons of New-York.

THESE experiments were performed at the College of Physicians and Surgeons of the University of the State of New-York, in the presence of the students of the College and a number of professional and other gentlemen. The battery, under the direction of Professor DANA, consisted of two hundred pair of eight-inch plates. The dissections were made by Dr. J. AUGUSTINE SMITH, Professor of Anatomy, and Dr. STEVENS, Professor of Surgery. The subject was of fine stature and proportions, and was about 23 years of age. He was suspended 50 minutes, and was brought to the College of Physicians and Surgeons in 20 minutes after he was cut down. The temperature of the body was 82° Fahrenheit when he was laid on the table.

*Experiment* 1.—A wire was placed in the mouth and another in the urethra, and the poles of the battery applied. The jaws were violently closed, and the countenance exhibited a strong play of muscles, varying from the change of one passion to another. The expressions were generally of such character as indicated great pain and suffering, and the effect produced on the spectators was very apparent. Many shuddered. As the excitability passed away, different attitudes were assumed by the muscles, from the strong emotion of fear softening to a playful smile.

*Experiment* 2.—An incision was made under the tendon achillis, and a pole of the battery placed there, the other continuing in the mouth. Flexion and extension of the leg was very strong, and the limb was thrown repeatedly off the table. The whole body was very sensibly agitated, the face showing the same contortions and expressions as at first.

*Experiment* 3.—The radial nerve was now exposed, and the wires which were placed for the preceding experiments were successively held in communication with the arm. Here the

flexion of the fingers was so strong that the hand could with difficulty be opened, the arm remaining in strong agitation.

*Experiment* 4.—The sup. orbit. nerve was laid bare and touched by the wire. The brow was thrown down, and the eyelid gave what is vulgarly called the knowing wink.

*Experiment* 5.—The infr. orbic. nerve was placed on the wire, and communication established between the sup. orbit. nerve. The corner of the mouth was drawn up, and the alœ of the nose played up and down. Here both lids opened and shut, and the eye rolled, which gave more appearance of living action than any preceding experiment. This was very interesting, as it evinced the power of the eye in making up the whole expression of the countenance. In the other experiments, the effect was solely on the muscles, and wanted the effect which was here conjointly displayed.

*Experiment* 6.—The phrenic nerve, as it passed over the scalenus muscle, was held in connection with its inferior expansion on the diaphragm. All the muscles employed in respiration were thrown into motion. The chest heaved and fell, and breathing in all appearance was going on naturally.

The experiments were now varied. The deflagrator was now used for the first time. This battery, which has but small power on the living body, was little inferior to the small plates in its effect.

The lacteals were seen carrying the chyle to the thoracic duct, and their absorbent power did not appear to have lost much of its vigor.

These experiments were more successful than those performed at former periods; and whether to satisfy physiological inquiry or gratify curiosity, they fulfilled the expectations of those who witnessed them.

# REVIEW.

ART. I. *A Treatise on the diseases of Females.* By WILLIAM P. DEWEES, M. D. &c. Phil. 1826. 8vo. pp. 557.

THIS is the *fourth* large volume, independently of numerous and ample contributions to medical journals, published by Dr. Dewees within a very few years, and presents, at first sight, an instance of intellectual dispatch and industry, and a fecundity of resources not often paralleled in the medico-literary world. As all these publications are devoted to subjects connected with midwifery, there will forthwith mingle with the praise otherwise accorded to so prolific a writer, some surprise that so much could be said, even by an author so extensively acquainted with this branch of medical science as Dr. Dewees undoubtedly is, on a subject now generally understood, and already treated of very amply, and withal, very ably by numerous and distinguished predecessors. This surprise, as well as the accompanying praise, will much abate of their force, on the discovery of the fact, that large portions of each succeeding volume are mere transcripts from its precursors, and that a useless, not to say, unpardonable amplification of common places has been frequently resorted to with no other view, that we can discover, save that of book-making. To this object, it will likewise be found, that many important considerations, which should not have been lost sight of by a writer aspiring to the rank of systematic, have been most unsparingly sacrificed. Among these not the

least remarkable is the utter neglect of all attention, not merely to elegance or force, but to the most ordinary accuracy of language. Now we are aware, that in scientific works, the professed aim of which is simply to convey instruction, and not to entertain or captivate by the charms of composition, the style and ornaments are comparatively insignificant objects; yet we must insist upon it, that there are certain negative merits, without which, no writer, however impressive may be the facts he communicates, can hope to succeed in arresting public attention, or gaining a lasting reputation. These merits, and they are indispensable, are accuracy and precision of language—and of the rules appertaining to these, we fear that Dr. Dewees will be found either ignorant, or, what is worse, culpably careless in every page of his writings. To point out examples falls not within our design, but they will at once strike the most cursory reader; nor are these faults always compensated for by the interest or the novelty of the subject. It is not our object, however, so much to point out the defects of Dr. D. as a writer, as to furnish useful matter to our readers as annalists; and in advancing the preceding remarks, we have been actuated by no other motive, than to protect the interests of our native literature, never likely to suffer more than when invaded by authoritative and popular authors, like Dr. Dewees. Proceeding, therefore, to the more pleasing part of our vocation, we shall omit noticing in this article, such chapters as have before appeared in print. Of these there are not a few in the present volume, and they form, probably, its most important moiety, viz. those on inversion, retroversion, and hemorrhage of the uterus—which have successively appeared in "Chapman's Journal," in the "Essays on Midwifery," and in the "System of Midwifery." We shall therefore presume our readers to be sufficiently acquainted with their contents, and likewise with the chapter on diseases of pregnancy to be found in the system of midwifery. In these repeated impressions of the same materials, Dr. Dewees has undoubtedly been actuated by no other motive than that of promoting and

extending the knowledge of useful subjects skilfully treated—yet we fear there will be found purchasers selfish enough to complain. Their jeremiads we shall leave to be appeased by the bookseller.

CHAPTER 1st. *Of the peculiarities of the female system.*—We find under this a long, and as it appears to us, trivial discussion of the question, whether or not the uterus exercises any influence in the production and modification of disease. That the uterus maintains powerful sympathies with some of the most important organs in the female system, is not denied by Dr. Dewees; and that these sympathies are called into play whenever the uterus is affected by disease, is also admitted. "But," says our author, "the brain, the stomach, the kidneys, and the liver, will also have particular parts deranged by a sympathetic influence, yet it has never been asserted, that either of these parts had, at any other time, or under any other circumstance but disease, any agency in producing or modifying disease in any other portion of the body.*" Now this is flatly contradicted by the facts of the case, as may be made to appear from almost every page of our author's own writings. He will surely not contradict us, when we assert that a male may pass through a very long life, enjoying the most vigorous health without having had any organ at any one period disturbed in its function, or diseased in its structure. Claiming, then, the same degree of health for a female, can she pass through an equally long life with the same immunity? Must she not menstruate, and when in the pregnant state, must she not undergo the penance attached to the trying period by the primal curse—in sorrow shalt thou bring forth? Else whence the increased irritability of mind and body—the indigestion, and in short, the nameless ills treated of by Dr. D. himself, under the title of "Diseases of pregnancy." And does not Dr. Dewees tell us, that *the uterus has decidedly the power of exciting other parts to diseased, or at least deranged*

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* P. 23.

*action, while it preserves itself in the most healthful state?** Will he advance this assertion as respects any other organ?

Again, by way of confirmation to the strange position he here attempts to defend, our author informs us that he has never, during menstruation, detected the slightest influence exercised by this secretion over any disease, nor has it ever made him vary a prescription,† &c. This is, to say the least of it, in direct contradiction to the views of the most eminent writers, and as we believe, to the practice of the most eminent masters of the art.

Chapter III. *Tumours and Excrescences of the External Parts.*—Under the head of diseases of the nymphæ, Dr. Dewees relates an interesting case of warty tumours occupying the labia and nymphæ, preceded by a venereal affection in its most aggravated form. These tumours increased rapidly in numbers, and augmented in size, and from their whole surface issued an acrid offensive matter. Mercury had been administered to salivation, but the tumours still increased. The following was the treatment pursued by Dr. D.

"The patient was ordered to her bed; the labia were kept separate, by means of adhesive plaster: this being done, the whole vestibulum, and crops of warts, were exposed. A quantity of prepared chalk was dusted upon the surface, and no other application was permitted, if we except the occasional washing with warm water; that is, morning and evening. This plan, though a little difficult of accomplishment, succeeded in about a fortnight to remove every excrescence, so as not to leave a vestige behind.

"It was truly remarkable, to see how rapidly these parasite productions lost their life, by depriving them of moisture. They would drop off in large portions at every bathing of the parts, until each one perished in its turn." p. 29.

*Abscess in the Labium.*—In this affection our author relies mainly on the mercurial ointment. In young subjects more especially, this application is to be preferred to poultices, on account of the difficulty of confining these last in their position. The lancet is seldom required, as the tumour opens of itself in

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* P. 118. † P. 23.

a short time, but if it does not, and the sufferings are great, and the fluctuation very evident, it should be forthwith punctured.

*Œdematous swelling of the Labia.*—Women who have had many children, and who labour under the anterior obliquity of the uterus, are mostly subject to this affection, and they have their labours by it retarded. It is generally accompanied by a hard full pulse, constipated bowels and spare urine. The loss of a few ounces of blood; twenty grains of nitre three or four times a day, laxatives, and a horizontal, posture are the remedies recommended. When the tumour threatens to burst it should be opened.

Chapters VI. & VII, on the history of menstruation and deranged menstruation, are copied from the System of Midwifery with some unimportant additions.

Chapter VIII. *Menorrhagia.*—By this term our author implies an immoderate discharge of *blood*, properly so called, following the secretion termed the menses, and not an excess of this same secretion. They are distinguished sufficiently in his opinion, by the exclusive coagulability of the former. This excessive discharge may either be complicated with a general affection of the system, or it may be purely a local affection. A corresponding modification in the treatment will be obviously pointed out in these different conditions. In the first case the treatment must be general, as well as directed to the more immediate object of arresting the evacuation, which alone will claim attention in the second. The sugar of lead is the principal means recommended for this great purpose, and our author's formula is,

℞ Acetat-plumbi ℈j.
Gum opii gr. iv. M. ft. pil. xii.

One of these pills to be taken every half hour, hour, or two hours, according to the urgency of the case. Should the medicine be rejected by the stomach, it must be given in the form of enema, thus: a scruple of the acetate dissolved in two ounces of warm water, and a teaspoonful of laudanum to be added.

Chapter IX. *Diseases of Pregnancy.*—See "System of Midwifery."

Chapter X. *Displacements of the Uterus.*—See do.

Chapters XI. & XII. *Inversio and Prolapsus Uteri.*—Do.

Chapter XIII. *Leucorrhea.*—Passing over much ingenious, but wire-drawn speculation, we shall rest satisfied with enumerating Dr. Dewees' division of leucorrhea into three species, viz. 1st, of direct irritation; 2d, of indirect irritation; 3d, of habit. In opposition to Dr. Cullen, our author maintains that this disease has its seat, for the most part, in the vagina and not in the uterus. Exceptions, he admits, do sometimes occur, and they are very difficult to manage. He believes leucorrhœa to be a *local* disease, never implicating the system, except secondarily by the excessive quantity of the discharge. It is divided into *three* stages.

In the *first* stage the matter discharged is glairy and transparent; it often accumulates for some time in the vagina, and is then suddenly discharged. This mucus is probably furnished by the neck of the uterus alone, which is undoubtedly inflamed.

*Treatment.* Warm bathings three or four times a day, purges, milk and vegetable diet, occasionally venesection. The tincture of cantharides is then to be given in doses of thirty drops three times a day, in a little sugar and water, to be increased daily by the addition of five drops, until strangury is produced, provided the discharge be not arrested previously. When strangury is produced, the tincture is to be discontinued for a while and then resumed. The disease rarely resists the second irritation of the bladder. Astringent injections of the sulphate of zinc are also proper; and the strictest attention to cleanliness must be insisted on.

In the *second* stage the discharge has a white or purulent appearance, is more abundant, and constantly oozing by a stillicidium. If the parts be not kept clean, it becomes offensive. The patient now complains of pain in the back—pubes

and hips—her complexion is sallow, and nervous symptoms ensue. The inflammation has now extended to the vagina.

In the *third* stage an aggravation of all the symptoms takes place; the discharge is greenish, occasionally tinged with blood. The treatment is the same as in the first stage, varied according to the extent and virulence of the disease.

We next come to the diseases of the uterus.

1st. *Carcinoma Uteri.* The symptoms are too well known to require recital. In treating this distressing complaint, the great aim should be to prevent the occurrence of ulceration, by reducing the primary local inflammation. This is to be effected by the usual means. Local is preferable, in the majority of cases, to general blood-letting, and the blood should be taken from the sacrum, abdomen, or vulva. In the choice of purgatives we should be careful not to administer any which occasion pain, or do not sit well on the stomach. The following is a good formula.

℞ Gum. Aloes. soc. ʒfs.
Pulv. Rhæi. ʒj.
Ol. Caryoph. gut. iv.
Sapo. venet. gr. viii.
Syr. Rhæi. q. s.—M. f. pil. xxx. One of these to be taken every night, or every other night. When costiveness is urgent, large injections, to act by their bulk, should be had recourse to. When the disease has advanced to ulceration, an intolerable smell proceeds from the vagina, for which frequent ablutions, and the application of carbonic acid gas, lime, and pyroligneous acid become necessary.

*Polypus Uteri.* This disease our author has never seen; his account of it is drawn from other writers; Levret, Denman, and Clarke. The same may be said of his next section on the cauliflower excrescence.

In *hydatids of the uterus*, Dr. Dewees proposes the free use of the secale cornutum, especially in those cases which do not admit of the introduction of the hand into the uterus.

Chapter XVI. *On Uterine Hemorrhage.*—See System of Midwifery, and Philadelphia Journal of the Medical Sciences.

Chapter XVII. *Hysteritis.*—Dr. Dewees divides this disease into two species; first, the simple or pure inflammation of the substance of the uterus; secondly, the mixed or accidental inflammation of the peritonæum, or puerperal fever. It may, however, be observed, that the second is, in general, a mere extension of the first form, and that, in practice, the two may be rather considered as distinct stages, differing only in violence of the same affection.

The symptoms and causes of this severe disease are familiar to all practitioners. In the treatment the most ample depletion must be employed, both by general bleeding and by the application of leeches to the abdomen and vulva.

Purging is not considered by Dr. Clarke as serviceable after the bowels have been once freely emptied of their contents. He regards it directly injurious, as preventing that gentle perspiration which, in his opinion, is the most efficient agent that can be employed in curing this disease. This is combated at some length by Dr. Dewees, who says he has always found it necessary, as well as useful, to purge from the beginning to the end of the disease. His reasoning is so judicious, on this point, that we shall give it in his own words :

"The patient is labouring under an inflammation of a most active kind, which, if not speedily removed, will terminate either in disorganization, or in dissolution. We have already noticed the peculiar situation of the uterus at this period; the difficulty of divesting it of its blood, by bleeding; and the great quantity which is required to be drawn, to have an influence upon the immediate seat of the disease. This being the case, it is every way evident, that, whatever will co-operate with blood-letting, in diminishing the general quantity of this fluid, without its absolute abstraction, or divert it from its tendency to the uterus, as well as emptying the vessels in the neighbourhood, will much contribute to the reduction of the disease. On this account, we would as earnestly recommend purging in this disease, as in puerperal fever, where its value is not disputed, and for nearly the same reasons. Besides, our experience is decidedly in favour of this treatment.

"We cannot look upon the objection urged by Dr. Clarke, as having the least force; for we have never found it practically correct, that, in the inflammation of the uterus, 'perspiration will do more towards curing the disease, than any other remedy.' Dr. Clarke admits the absolute neces-

sity of bleeding, and the propriety of repeating it again and again; yet, he would have us believe, that 'a gentle perspiration, *if it can be produced*, and kept up,' will compensate for the farther loss of blood, than which there can be no greater error; and were we to rely upon this state of the skin for the cure of an inflammation of the uterus, we should, we are persuaded, but add to the already too frequent opportunities, by post mortem examinations, of determining, that, 'upon cutting into the substance of the uterus, pus is often found.' P. 69. To us, it appears that Dr. Clarke has mistaken the gentle perspiration which takes place at the decline of the disease, and which, as a consequence of the solution of the fever, was procured by free blood-letting, and other depletions, for the cause of the abatement of the uterine inflammation; if this be so, and he has relied upon the production of perspiration for the cure of this complaint, we need be at no loss to account for the condition of the uterus just described. Besides, Dr. Clarke is no way confident that a perspiration can be procured at will; for he says, 'if it can be produced;' and how much important time may be lost, for a benefit so contingent!

"Can any further evidence be required of the necessity of blood-letting, than the formation of pus within the substance of the uterus? or can there be stronger reasons to believe, that in the cases which presented these appearances after death, this remedy, and perhaps others of a similar kind, had been too sparingly employed? From these facts, we never have had the smallest hesitation to give purging medicines with a liberal hand; nor have we ever had reason to condemn ourselves for the practice."—pp. 360–362.

*Fomentations.*—These are disapproved of by Dr. D. who supposes them to do mischief by the intensity of their heat, by their weight, by exposing the patient to chills, and keeping her constantly wet. In cases of hysteritis, however, which are attended by after-pains, he recommends the "tansy pancake," made by mixing flower and water to some consistence; with this some tansy is mixed, and it is then to be fried like a pancake, but made much thicker, say half an inch; it is then to be placed between two cloths and applied to the abdomen. We hope none of our readers will accuse the author of an occasional leaning towards empiricism from this specimen.

*Blisters* are condemned by Dr. Clarke, and our author does not venture to recommend them.

*Sudorifics* are useful as adjuvants. The Dover's powder is the most useful form.

*Opium.*—Excepting in the form last mentioned, this drug is not approved of.

*Emetics* are denounced, and with propriety, as injurious.

Chapter XIX. *Puerperal Fever.*—Few diseases have attracted so much attention, and so frequently baffled the most eminent skill and persevering attempts of the physician, as this. The most opposite doctrines have been entertained with respect to its nature, and the most contradictory methods of treatment recommended for its removal. If we are to judge of the accuracy of either by the success attending them, we shall feel all the humiliation of uncertainty and doubt, and probably witness the loss of the patient whilst we are deliberating on the measures proper to afford her relief. Happily this disease is not of frequent occurrence in our country, and the experience of our physicians is, therefore, limited with respect to it. As far as this has gone, we believe, it has led to a very general belief in its inflammatory character, and in the absolute necessity of active depletion for its arrest and removal. That this means too frequently fails in accomplishing its desired objects, is too certain. This is, however, no more an argument in favour of an opposite mode of treatment, than the frequent fatality of gastritis, enteritis, &c. is against the use of the lancet in these undisputed inflammatory affections: and in the puerperal fever the presence of such an action can scarcely be questioned when the active circulation in the general system, the suppression of all the most important secretions, the signs of peritoneal inflammation, are taken into view. We are aware that there is a puerperal affection described by Dr. Hall, which closely resembles this fever, yet is confined pretty much to the nervous system and gives tokens of irritation solely, not of inflammatory excitement. But this circumstance only shows the greater necessity for the exercise of a discriminating judgment, and a prompt decision on the part of the attending physician.

*History.*—The puerperal fever is always most fatal when it appears epidemically. In Philadelphia, Dr. Dewees tells us,

it has never raged as an epidemic, although sporadic cases have been more frequent during some periods than others. It does not appear to attack the poor oftener than those in high life. In England it occurs more frequently than elsewhere, and is more fatal.

It generally attacks after the first forty-eight hours, and the earlier the attack the more dangerous the disease.

Delivery appears to have no agency whatever in the production of this fever. In the greater number of instances in which it has occurred, the labour has been easy and the placenta come away in due time and without pain. Armstrong, Hey, and most other authors, testify to this fact.

The following presents a connected view of the symptoms which will serve for a diagnosis of this disease.

"1st. Pain or tenderness in the hypogastric region, occurring after delivery, from the first few hours to several days.

"2d. Swelling or tension, in that portion of the abdomen, where the pain or tenderness is felt.

"3d. By these symptoms almost always being followed by a chill or rigor, of longer or shorter duration, or greater or less force.

"4th. By this being followed by great re-action, terminating for the most part in a profuse sweat; without this sweat moderating the fever, or other symptoms.

"5th. By this fever being accompanied by an accelerated pulse; rarely less than one hundred and twenty, and oftentimes as many as one hundred and fifty strokes in a minute.

"6th. By the absence of milk in the breasts; either because it has not been secreted, or because the secretion has been interrupted.

"7th. By a diminution, alteration, or suspension of the lochial discharge."—pp. 402-3.

Post mortem examinations have made it sufficiently evident, that inflammation of the peritoneum constitutes the essence of this affection. It is not always confined to any one portion of this membrane: the mesentery, omentum, the liver, the mesocolon, and even the pleura and pericardium may become involved. Effusion is a common termination of the inflammatory process. Mr. Cruikshank says, he has taken forty or sixty pints from the cavity of the abdomen in cases of this disease. When this effusion is extensive, the existence of previous inflammation is less evident. Hence some have denied its ex-

istence altogether. Even Dr. Clark however, who is disposed to deny the existence of inflammation in this fever, admits that the fluid effused has the same remarkable properties in both cases.

"It is easy to refine too much; and nowise difficult for a sturdy polemic to deny the force of the most obvious facts. What but the resolution of inflammation yields such a quantity of fluid as is found after puerperal fever? What but inflammation, giving out coagulable lymph, will account for the interstices of the intestines being filled up; their surfaces covered; and their various convolutions connected in masses? What but an inflammation, and that of the most active kind, will give rise to such an acceleration of pulse; such immoderate heat; such intense pain; such exquisite soreness, as almost constantly combine in the puerperal fever? In a word, we must repeat, what other condition of the blood-vessels, than inflammation, induces them to give out so suddenly, and so excessively, their fluids? Besides, inflammation of the peritoneum from other causes, is known to terminate in large effusions within the abdominal cavity; rupture of the uterus, if the woman should not die too soon, is always, we believe, accompanied by a large effusion.

"Mr. Cruikshank tells us, 'if an inflammation arise in a cavity, it may terminate in a number of ways; one by an increased secretion of the fluid of the surfaces. A man receives a blow on the testicle; inflammation takes place, and the consequence is frequently a hydrocele, or dropsy of the tunica vaginalis. A child's brain inflames, and this inflammation ends at last in hydrocephalus. Pleurisy frequently terminates in hydrothorax.' On the absorbing vessels. p. 116.

"Now it is a fact, very well ascertained, indeed we had almost said not disputed, that when the vessels of an inflamed surface proceed to effusion, there is an immediate reduction of that inflammation; nay, sometimes, a complete removal of it; so much so is this the case, occasionally, that disappointment has followed the search for it, where there previously existed every evidence but ocular demonstration."—pp. 376–7.

It is admitted by our author, that the peculiar epidemic constitution of the season will have an influence on the *type* of the disease, and that it should, to a certain extent, modify our therapeutic views. Particular situations, such as crowded hospitals, may also exert some agency on the character of the disease.

*Prognosis.*—In forming an opinion, as to the event, the practitioner must be particularly careful not to be led away by an appearance of amendment, which is apt to take place,

as in the yellow fever, about the third day. The abatement of pain, and the subsidence of the swelling, unless attended by general symptoms of crisis throughout the system, are but preludes to a fatal termination.

The favourable signs are:

"1st. A diminution of frequency of the pulse, with an increase of its volume.

"2d. A reduction of the swelling of the abdomen, and abatement of pain, provided the first is gradual, and the latter not sudden, and accompanied by condition first.

"3d. Changing posture without suffering inconvenience, provided jactitation is not mistaken for it.

"4th. A return of milk to the breasts, attended by solicitude for the child.

"5th. A restoration of the lochial discharge, provided it has been suppressed, together with a change to a healthful appearance.

"6th. The tongue becoming moist; losing its white appearance, and cleaning at the edges; or, if it has been brown and dry, becoming whitish and moist, accompanied by condition first.

"7th. If the urine becomes more abundant, and deposites a lateritious sediment.

"8th. If the skin becomes cooler, and moist throughout its whole extent; especially if attended by conditions first, second, third, fourth, and fifth.

"9th. 'A subsidence of the abdomen after copious stools, and with a moist skin, is a fortunate alteration for the patient.' Denman.

"10th. 'If the pulse can be kept under one hundred and twenty in the minute for the first twelve days, the patient will generally do well; but if the pulse keep very quick, after the abdominal symptoms have entirely disappeared, affections of the chest, and of the glandular system, or deep-seated suppurations, may be dreaded.' Armstrong, p. 32. pp. 406–7.

The *contagious* nature of this disease is denied.

*Treatment.*—Dr. Denman, it is well known, commenced practice with great doubts of the propriety of blood-letting in this disease. Our author observes, that the influence of this highly cultivated and respectable practitioner was so great as to give a "tone to public opinion," and his doubts were generally adopted. "Fortunately for the fate of hundreds, a more extended experience, and more correct notions of the nature of the disease, led him to renounce, with much magnanimity, the errors of his early life." He now recommends

active bleeding in the early stages of the disease, and believes its failure then is owing to the circumstance of its not being carried sufficiently far. See Denman's Midwifery, p. 576.

In this part of the book before us occurs an apophthegm, to which we beg leave to call the serious attention of our readers, as well as to the accompanying remarks.

"We are persuaded, there are few errors in practice greater than that which is founded on the belief, that when a *disease will not bear with profit, depletion, that it then absolutely requires the opposite treatment;* and we are also persuaded, it has been the death of thousands.

"The supposed tendency to typhus, in fevers of every description, when the patient has become weak, and especially if the tongue has become brown or dry, has led unhappily to the use of tonic and stimulating remedies, in the practice of almost every body; but were the results of such treatment faithfully recorded, we are convinced there would be but little evidence in its favour—indeed, so confident are we on this subject, that we never fail to consider the *cures* of such a state of fever by this method, but as *escapes*."—p. 412.

*Bleeding.*—Mr. Hey's testimony goes far in favour of this measure. This distinguished writer informs us, that it was not uncommon for the fever at Leeds to finish its course in forty-eight hours, and in many cases it proved fatal in a much shorter time. Yet, he tells us, that of fourteen patients, treated without bleeding, only three recovered; and of thirty-three, treated by it, only *three died;* the last twenty-six recovered in uninterrupted succession. Copious bleeding was used in all these cases but one, which was mild.

In Dr. Armstrong's practice, out of forty-three cases thus treated, only five terminated fatally; and in Dr. Gordon's, only five out of fifty. To this last gentleman, in fact, is due the credit of having first made extensive use of this remedy, at Aberdeen, in 1789.

The rules which are to guide us in bleeding, must necessarily be somewhat vague, as the state of the pulse, skin, and, in short, all the prominent symptoms are, by no means, laid down with precision. Our author advises,

1st. To bleed as early in the disease as possible.

2d. To bleed at that time as much as the system will bear.

3d. Repeat pro re rata.

As long as the pulse possesses any firmness, the abdomen is very tender and sore, and the mammæ secrete milk, bleeding is safe.

*Purging* should follow, and the best article for effecting this purpose is undoubtedly calomel, and, according to Dr. Armstrong, in large doses of a scruple, frequently repeated. Our author prefers its administration as mentioned in the section on *Hysteritis*.

*Emetics*.—Doulcet and Armstrong strongly recommend them. Dr. Dewees considers them of doubtful efficacy.

Blisters, fomentations, and ol. terebinth. also recommended on high authority, are viewed with distrust in the text.

When the "gangrenous state" is developed, as announced by the increased frequency of the pulse to beyond one hundred and forty and abatement in force—by hiccup—suppression of milk and flaccidity of the mammæ—constant rejection of the ingesta—obtuse pain instead of acute—increased swelling of the abdomen—urine high coloured, offensive, and scanty—lividity of the lips and cheeks—dry, rough tongue—scurf on the gums—dry and husky skin, &c.—the treatment must be managed with great caution, and the apophthegm, already quoted, be borne in mind. Let all stimuli be withheld, but the evacuation from the bowels be continued. Sometimes, but very rarely recovery ensues.

The stage of effusion is one of utter hopelessness. Stimulants, cordials, opiates, may now be freely administered to give comfort and soothe restlessness.

Some general directions are given touching regimen and diet, the nature of which may easily be inferred from the preceding views.

*Milk abscess*.—Dr. Dewees considers the milk fever, which is generally regarded with so much indifference, as an unnecessary and not unfrequently a dangerous consequent of mismanagement in the diet of the parturient female. By avoiding stimuli of all kind, milk fever may be avoided almost universally. This is not the only cause, however, of mammary abscess. Any cause of irritation, as cold, mechanical

injuries, and metastasis, may produce it. Sometimes no cause can be traced. Our author makes two varieties: one where it attacks the gland; sometimes the cellular substance alone, and again both may be attacked simultaneously. The symptoms are well known.

*Treatment.* 1*st, local applications.*—Warm vinegar for at least twenty-four hours. Should the symptoms not be subdued, leeches should be applied till eight or ten ounces of blood are drawn, and the wounds covered with a warm poultice. When the wounds are healed, the vinegar should again be had recourse to, or leeches again if necessary.

As soon as suppuration becomes certain, the following liniment is proper:

Ol. Olivar. Opt. ℥ij.
Liq. Plumbi sub. acetatis, ʒj.
Æther Vitriol. ʒij.
Tinct. Thebaic. ʒj. M.

To be applied on a rag.

The regimen must be severely antiphlogistic, and the general treatment regulated by the severity of constitutional symptoms. When matter has formed, the tumour must be punctured with a lancet, and a small quantity, say an ounce, be allowed to flow out; after which the opening is to be covered for three or four hours, and then again allowed to discharge. The orifice should be small. When fungus prevents the orifice from healing, caustic should be applied to it; and if a sinous ulcer ensue, a seton must be introduced.

"This operation is performed in the following manner: a probe is passed along the sinus, so far as it will go. If the direction be outward, towards the portion of the breast next to the arm, so much the better: but if not, let the point be carried towards the side it most inclines to. When the probe has passed as far as it can along the sinus, the point is urged laterally, until its point is perceived to press against the skin without; at this point it is to be cut upon, and the probe is forced so far through this little wound, as to enable the operator to seize it, either with his thumb and finger, or with a pair of forceps. The probe is then drawn through, having been previously armed with a portion of braid, soft half inch tape, or a piece of silk riband.

"The seton is permitted to remain from three to four weeks, without being disturbed; or until, from the healthy appearance and diminished quan-

tity of the pus, there is reason to believe, the sinus will heal upon the withdrawing of the seton. But, should there be a tendency in the external orifices to close too soon after the seton is removed, or before the sinus is supposed to be healed, they are kept open by a small piece of bougie, or sponge tent, until the healing takes place.

"Should the matter become hard around the seton, and obstruct the farther flow of pus, it must be removed by carefully washing it with warm water, or by the application of a soft bread and milk poultice. Dr. Physick assured us, that this plan had succeeded entirely to his satisfaction, in the several trials he had given it; one of which we witnessed ourselves. And he is of opinion, that this operation would always succeed, wherever there is no cancerous tendency in the parts, to prevent the operation from being performed."—p. 467.

*Hysteria.*—This is the last disease of which our author treats, and he has treated it with considerable ability. From enlarged observation and study he is disposed to place the seat of this affection in the brain and in the origin of the nerves, and he attributes the protean varieties it assumes to the circumstance of different nerves being affected in different cases. Thus, if the nerves of the stomach be affected, gastric symptoms will be present—as eructations, gastrodynia, pyrosis, &c. —if the intestines, costiveness, diarrhœa, spasms—and so on with the liver, the kidneys, &c.—if the muscular system be affected, convulsions will ensue. Hysteria simulates, but does not produce other diseases. It is frequently complicated with fulness and increased action of the vascular system. The pulse should, therefore, not be neglected in this disease. The history of hysteria is too well known to require detail. The treatment of our author is extremely judicious, but does not present any novel features. We shall conclude this analysis with the following case of hysteria occurring in a male, and which called forth all the resources of an innocent, and, we may add, laudable empiricism.

"In the year 1803, Mr. S. called upon us for advice on his case, which he declared to be an ill-cured venereal affection. He was a married man; and, when under the influence of wine, was led to illicit enjoyment. This was his first and only aberration; he so condemned himself for this act, that he dwelt with intense solicitude upon the probability, that he might have contracted disease. He watched every sensation and appearance of his body, with the most painful anxiety; both of which were so exalted by

his imagination, that he fancied he had the venereal disease in its most decided form.

"Ashamed to make his situation known to his family physician, he applied to a quack, who confirmed his fears. Mercury was now administered, and a profuse salivation excited; but the symptoms he so carefully cherished, did not change. He became dissatisfied with the quack, and sought another, and another; each in their turn gave him mercury, and so reduced him as to be scarcely able to walk. This discipline continued for about 14 months: at the end of which time he found his health destroyed, and his little property dissipated, to satisfy the rapacity of these merciless pretenders to medicine.

"At this period we were consulted: upon a careful investigation of his history, we were perfectly satified that he never had been in the slightest degree injured, and frankly told him so, and to be satisfied that this was the case. He appeared at the moment gratified and happy at our assurance, and went away without a prescription. He however returned in a few days, and declared we must be mistaken; and that he was certainly diseased. Finding this notion to be firmly fixed, we thought it best to meet him upon his own terms; we acknowledged him to be diseased, but that his disease was completely under the control of medicine, provided he would strictly adhere to our instructions. He was delighted with this declaration; and promised the most faithful compliance with any directions we might give.

"We had a box of pills prepared for him, composed of bread, coloured with a little rhubarb, and scented with the essential oil of aniseed. One of these was directed to be taken every morning, noon, and night; his diet was prescribed, &c. He returned, much delighted, at the end of a week; he declared the pills had acted like a charm; that his appetite had returned, and was even voracious; that his strength was improved, and that *all his venereal symptoms* were much abated. He now begged to be allowed to increase the doses of the pills; this we peremptorily forbade. He persevered in the plan laid down for him for six weeks, at the end of which time, he confessed himself to be perfectly well, and every way capable of attending to his long-neglected business." pp. 523–4.

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ART. II. *Formulaire Pratique des Hospitaux Civils de Paris, &c. A Practical Formulary of the Civil Hospitals of Paris; or a Collection of the Prescriptions employed by the Physicians and Surgeons of these establishments.* By F. S. RATIER, D.M.P. &c. 2d edit. Paris, 1825. 18mo. pp. 498.

THIS little book contains so many valuable sketches of new and original modes of practice among the most eminent of

the Parisian faculty, that we deviate from our ordinary custom in bringing to the notice of our readers a work in a foreign language.

The hospitals of Paris are all governed by one general administration; but each hospital has its own set of prescriptions, and these are modified by the different Physicians and Surgeons of each establishment. The prevalence of the doctrines of Broussais, and probably other causes, have tended to introduce a very wholesome degree of simplicity in the pharmaceutical prescriptions of Paris, the complexity of which, until recently, has been unworthy of the advanced state of our art. An important feature in the little work before us, is, that it contains notes from many of the medical gentlemen in charge of the hospitals. In one from M. Dupuytren, he says, "all the bodies of those who have died in the Hotel Dieu for the last six years, have been examined without any exception, and thus the truth of Desault's opinion has been proved, that most of those who die while under surgical treatment, perish from internal inflammations, generally two, three, or four, in the same subject." This observation, says M. Dupuytren, has not been lost. Diluents and refrigerants have taken the place of tonics, bleeding and leeching of excitants and stimulants; hardly a pound of bark is given internally, and only a few pounds externally, among three thousand patients, annually treated in the Hotel Dieu. Fractures are treated chiefly by position and the simplest means; hernias are operated upon the moment they are received, and cataract is removed by depression at the beds of the patients: the successful cases are $\frac{7}{8}$ of the whole; of fistula lachrymalis $\frac{19}{20}$; of hernia $\frac{3}{5}$; of the stone $\frac{5}{6}$.

In the author's preliminary remarks on the different hospitals, there is an interesting notice of the practice of M. Esquirol among the lunatics in the Salpetriere. M. E. is very properly sparing in the administration of drugs in these cases. The moral treatment consists,

1st. In separating the patients from the objects which excited their diseases, and from their relatives and servants, whom they generally detest or will not obey.

2d. In treating them with mildness, but occasionally with firmness.

3d. In classifying them so that they will not injure but improve each other; in placing the furious together in apartments remote from the others, in confining certain patients, who are much agitated, to darkened rooms; not constraining those who are excessively heated to wear too warm clothes even in winter.

4th. To separate entirely the convalescents, and to encourage labour, plays, walking, &c. amongst those whose reason is not entirely gone.

5th. To employ as means of prevention and of punishment only the straight jacket, confinement to a cell, change of apartment, and rarely the shower bath; never blows or other ill treatment; to manage the first interviews of the patients with their friends; to excite sometimes lively emotions by fright and even unjust reprimand, so as to replace one passion by another; not to engage in idle discussions with lunatics, and above all, to guard against exciting their anger by ridicule or opposition to their notions or passions; to promote intercourse among the convalescents; to keep the most watchful eye upon those who have attempted suicide, even after they appear to have abandoned all ideas of this kind, otherwise we shall be dupes of profound dissimulation, and never recall to those who have been cured, either the extravagances of their delirium, or the circumstances which have afflicted them unpleasantly, unless they are first to introduce these subjects of conversation.

We cannot dwell upon the physical treatment, which, however, appears to us usually judicious. M. Esquirol, thinks that wholesome and abundant food should be distributed four times a day, and that patients should be rarely restricted in their diet, even if they wish to eat during the night. As to medicines, M. Esquirol advises them not to be given at all, unless indications for their use are palpable.

We pass over other interesting matters, to the practice of M. Jadelot in the Hospital des Enfans. M. J's remarks on the physiognomy of infantile diseases are highly worthy

of notice. Independently of the alterations of colour which the face may exhibit, the expression of the physiognomy, and the greater or less prominence of this or that line, [trait] is an important means of diagnosis : In the infant, whose facial muscles are endowed with great mobility, three principal lines [traits] are presented to an observer. They are nearly parallel, and extend from the centre towards the sides of the face; the first, the oculo-zygomatic, commencing at the inner canthus of the eye, terminates a little below the prominence formed by the cheek bone; the second, (the nasal) commences at the upper part of the ala of the nose, and extends in a semicircle towards the junction of the lips. It is sometimes crossed by half a line, demi-trait, the genal, which extends from the chin towards the middle of the jaw; the last, the labial, arises at the commissures of the lips, and is lost near the chin.

The first of these traits is connected with diseases of the brain and nervous system; the second, and its accessary, the genal, with diseases of the abdomen; the last to the organs of circulation and respiration.

M. Ratier introduces among a great variety of remedies for the cure of *psora*, a precription of M. Lugol, of the hospital of St. Louis, which has the advantage of not soiling linen so much as fatty preparations. Washed sulphur and white soap, equal parts; rasp and dissolve the soap in water Strain and add the sulphur.

M. Dupuytren furnishes the following note respecting the treatment of *lupus*, or noli me tangere. "It is known, that notwithstanding all remedies, this disease often destroys the nose, cheeks, eyelids, ears, and temples. The actual cautery and arsenical paste seem to irritate it, besides adding to the deformity and destroying the parts which they touch." Dupuytren extols a powder combined of calomel 199 parts, arsenic 1 part. This remedy, he says, acts rather as a specific than a caustic. If the surface of the ulcer is moist and clear, the powder is to be sprinkled on so as to form a thin coat. If the diseased surface is covered with a crust, a poultice must be previously applied to remove it. If an imperfect cicatrix cover the sore, this must be removed before

the powder is applied. If the powder does not adhere, increase the proportion of arsenic, and mix it with mucilage. The powder must be left to fall off of itself, which usually happens in about ten days, when it is to be re-applied. Five or six applications are usually sufficient.

In another part of the book, Dupuytren takes occasion to dilate, we think, rather more than our experience will warrant it, upon the efficacy of anodyne injections in delirium tremens, and in the spasmodic symptoms which often follow fractures, especially compound fractures of the lower extremities. Laennec, whose death is truly a loss to science, offers the results of his experience in the counter-stimulant practice, which are of great interest. Laennec's prescription is, 1 gr. of tartar emetic every two hours during the day, increased if it is well borne, to one grain and a half, or two grains. This treatment, he says, is applicable to a great number of inflammatory affections, or acute nervous effusions. It is not, as Rasori asserts, a counter-stimulant or debilitant, suited to *all* cases of hyersthernia, or excess of force or stimulus, still less is it an antiphlogistic applicable to *all* inflammations; in some it is inefficacious, in others' intolerable, though in most it is useful. Experience has shown it to be efficacious in several cases of a different nature.

The only immediate uniform effect, Laennec has observed, is a rapid absorption of serous or purulent secretions, and the resolution of inflammations—generally no sensible evacuation takes place. These effects are never more certain than when the patient has had neither vomitings or alvine discharges. They take place, however, sometimes, notwithstanding pretty abundant discharges, when not productive of marked signs of irritation. They are arrested in a manner almost incredible, by increasing the dose, or adding opium to it. Bark does not neutralise its action. The diseases in which tartar emetic succeeds in the most heroic manner, are—acute rheumatism, in which, without any bleeding, a cure is effected with rapidity and certainty, in an average time of from two to eight days.

*Peripneumony.* Two or three bleedings in the beginning are enough. The tartar emetic is then given, and in twenty-four hours sensibly arrests the disease, as may be proved by the stethoscope. In pleurisy it is equally effectual—redness of the tongue, and other signs of inflammation of the stomach occurring in rheumatism and intense peripneumony, do not contra-indicate its use.

*Hydrocephalus* has yielded to tartar emetic in several cases with such rapidity, that sensible meliorations have taken place every few hours, and in some rare cases, cures have been effected in three days.

In *apoplexy* larger doses are required, as from half a dram, to a dram daily, for a month. When tartar emetic is not borne by patients in peripneumony or rheumatism of the joints, M. L. prefers the white oxide of antimony. He begins with thirty-six grains, which in three or four days he increases to a dram and a half. It is not in these doses even sure to prove laxative.

We pass over the practice of M. Leminier, of La Charité, in colica pictonum, to bring our already extended article to a close, with the interesting observations of M. Recamier of the Hotel Dieu, on the use of spirits of turpentine in neuralgia. "It appears to have a specific action explicable upon a rational theory. Its primary effect is to produce first in the digestive organs, then in the course of diseased nerve a considerable heat, which is followed by a cure. The medium time of treatment is six days; acute cases yield soonest. M. Recamier directs oil of turpentine ʒij. Honey ℥iv. Dose ʒſs. ter in die. If this disagree with the stomach, take the yolk of one egg; oil of turpentine ʒiij. mint syrup ℥iij. ether ℥j. tr. of canella ʒſs. Dose, a table spoonful three times a day. Laudanum is sometimes added to prevent sickness. Local applications and injections are also recommended.

After giving a number of recipes for the expulsion of tinea, with which we will not trouble our readers, the author inserts a note from Professor Guilbert, stating his opinion that the tape-worm is not injurious to the human system, so long as

the patient is supplied with plenty of food; that the animal usually dies in a few years, and the patient gets rid of the symptoms caused by it. M. G. thinks the ailments usually ascribed to the tape worm, arise from the medicines taken for its destruction.

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ART. III. *A Treatise on Special and General Anatomy.* By WILLIAM E. HORNER, M. D. Adjunct Professor of Anatomy in the University of Pennsylvania. 2 vols. 8vo. Phila. 1826.

THE science of anatomy has advanced steadily on the continent of Europe, and its cultivators have received their full reward, in the light their labours have thrown on the pathology of disease. The opportunities of vivisections, and its introduction into the schools, have led to the discovery of many valuable facts in physiology, elucidating numerous important laws of the animal economy. In this department of knowledge the French and German schools have certainly taken the lead, and many of the great and important contributions from the industry and research of Tiedemann, Meckel, Valpeau, and Cloquet, have, as yet, scarcely been incorporated into our systems. The usual text books are those of Bell, Fife, and Wistar. We are now called upon to notice another from the pen of Dr. Horner. It is by no means easy to write a good manual of practical anatomy, for, however well the author may understand his subject, he may not be as successful in communicating his knowledge. A system of anatomy requires peculiar care in its construction; and it is rather difficult to preserve the mean between too much dry detail, and a style too fanciful and airy. The great defect of Bell's work is seen in the wide display of imagination; and besides being full of conceits, it does not give a fair exposition of the opinions now prevailing. The discussion of the mistakes of the older anatomists may be worthy the leisure of the curious, but secures no important advantage to a practical work.

Dr. Horner has put forth a work not exactly such as was required, inasmuch as it does not post up the details of

the science to the present day. There is no objection to the arrangement: it is founded upon systems, the basis of Bichat's general anatomy, a sufficient guarantee for its excellence and utility in this respect. But we cannot conceal our surprise, with such ample materials before him, that Dr. Horner should not have been more copious in his selections. The great anatomists of the present day have passed in review before him, yet much of their valuable matter appears to have escaped him.

The style is dry and barren, and wants that vigour and point so valuable in descriptive works. We are aware of the difficulty in blending amusement with instruction, yet, we think, had Dr. Horner borrowed some little of Mr. Bell's spirit, it would not have injured the reputation or the dignity of his work. Dr. Horner is sufficiently aware of the deficiencies of our text books, and criticises them with no sparing hand. He objects to adding notes to Wistar—that it is a monument due to his merit, and should remain untouched. We approve of this as far as relates to his opinion of notes; but with due deference, we must be permitted to say, we see no particular merit in Dr. Wistar's work. If Dr. Horner will take the trouble to turn to Monro's and Bell's anatomy, he will see whole pages, transcribed verbatim, from their works. We are at a loss to discover how this is to erect an imperishable marble to his memory. To say the most of this work, it is a mere compilation, and the author intended it as nothing more, having no pretensions whatever to originality.

We marvel much that Dr. Horner has not availed himself of some great anatomical discoveries, published in his own city some two or three years ago, such as the formation of the pericardium from the superficial fascia. The Dr. mentions this as one of the errors of Bell, and we rather think, he is somewhat sceptical upon this subject. We, moreover, marvel that Dr. Horner has not rejected his present plan, to adopt that of *analysis*, which has produced these great discoveries, related with sufficient self-complacency, in a great work, yclep'd "Anatomical Investigations." We have industriously hunted the anatomical works of Europe, and to

our regret and mortification, not a word is mentioned of these important accessions to medical science. But we have nothing better to expect; it has always been the case, first to ridicule our pretensions, and then to claim the merit of our discoveries. Rush was libelled, Physick has been robbed, and the author of "Anatomical Investigations" is passed by in silent neglect:—but as the author elegantly expresses it, "time fixes every thing in its proper place." We believe it, and we candidly think that "time" has already "fixed" the character of a book, one of whose principal attractions is a *certain plate*, which would have been much more in place in some works which delicacy forbids us to name.

Dr. Horner will permit us, likewise, to marvel that he has omitted the notice of a paper read by Dr. Hosack before the Royal Society of London, in 1794, on the accommodation of the eye to the distances of objects. Perhaps, however, Dr. H. was not fully satisfied of the claims of Dr. Hosack to originality, and if so, we certainly cannot blame him for his silence.

The following curious extract from Dr. Monro's work on the eye, will show how far Dr. Hosack is entitled to the honours which he has so freely appropriated to himself, for his pretended discoveries on the subject of vision:

"On the first day of May, 1794, Dr. David Hosack read to the Royal Society of London, Observations on Vision, in which (Phil. Trans. 1794. Part II. xv. p. 232.) he writes as follows: 'With a speculum I made pressure on the eye, while directing attention to an object twenty yards distant, and saw it distinctly; but endeavouring to look beyond it, every thing appeared confused.

'I then increased the pressure considerably, in consequence of which, I was enabled to see objects distinctly at a much nearer than the focal distance; for example, I held a book before my eye at a distance of two inches. In the natural state of the eye, I could neither distinguish lines nor letters, but on making pressure with the speculum, I was enabled to distinguish both lines and letters of the book with ease."

"I find myself, therefore, under the disagreeable necessity of adding, that I mentioned the above experiments in my public course of lectures, on the 27th day of April, 1789: That I have repeated the mention of them in every course of my lectures since that time: That Dr. Wheaton Bradish, in his Inaugural Dissertation, 'De Visu,' published in September 12, 1792, and which I did not read till it was published, mentions in p. 39 these opinions, which

I had proposed in my lectures in the following words. 'Longe vero ante alias enitescit sententia, quæ interni auxilio cujusvis spreto Musculos quosdam Oculi externos, obliquos nempe, insuper et orbicularem hos simul præstare effectus asseruit. Tali Oculi axin augeri corneam convexam majis quam antea reddi.'—That Dr. David Hosack attended my course of lectures, the winter after Dr. Bradish published his Inaugural Dissertation, viz. 1792–3, which was finished upwards of a year before Dr. Hosack read his paper to the Royal Society."—*Treatises on the Brain, Eye, and Ear, by Alex. Monro.* pp. 136-7.

We are not surprised that this was admitted among the papers of the Society, for we must recollect that Sir Joseph Banks was President. The subject too is involved in great obscurity, and while the above explanation is insufficient, others have been offered which give no very satisfactory solution to the question. That Dr. Monro's solution of the difficulty is not just, is evident from these facts—the recti muscles are as two to one in number; in power as twenty to one; when the recti muscles act in conjunction, by drawing the globe of the eye against its fatty cushion in the orbit, they shorten instead of elongating its axis; the superior oblique has been cut, and no loss of this power has ensued; lastly, when adhesion of the iris takes place, we lose the faculty of graduating the eye. It evidently depends on the iris, but in what way, is yet to be discovered.

It is impossible in the wide range which a manual of anatomy presents, to give a review of all the subjects—a selection must therefore be made. We shall then take the brain, the anatomy of hernia, and the inflections of the peritoneum, as three instances in which the work is defective, in a proper knowledge of the subject—accuracy in detail, and sufficient clearness in communication.

Dr. Horner is, we believe, a phrenologist, and the investigation of the configuration of the brain and its minute structure should, we think, form a large part of the discussion which he devotes to the subject. We regret to say, these departments are almost entirely overlooked. He could not be ignorant of the discoveries of Reil and Malacarne, and their importance should have prevented their omission. If there is any thing that can advance Gall's system, it is to

be found in the experiments of Fleurens, which are most unaccountably passed over. We are at a loss to discover upon what principle Dr. Horner has compiled his book?— If the corpora restiformia, olivaria, and pyramidalia are described, we see no reason for omitting the lobes of the cerebrum and cerebellum, according to the division of modern anatomists. Different parts of the brain have different functions, and whenever we perceive a difference in structure, it is but fair to infer a correspondence of office. We think we do not hazard much in asserting, that there is a different formation of the sulci of the cerebrum in some parts; and although no physiological facts have been deduced from this, it is very important to mark these boundaries, when we observe them affected by disease. This will apply with greater force to the organization of the smaller brain, in which resides more important powers. On this subject the details are exceedingly scanty, and are by no means proportionate to the magnitude of the object. Reil and Malacarne have devoted great labour to the configuration of the brain, and European anatomists have considered their discoveries of great importance. We cannot, therefore, applaud Dr. Horner in passing by these accessions to the stock of anatomical knowledge, or imagine upon what grounds he has offered a description of the brain so partial in relation, and so meagre in selection, and which might have been enriched by the researches of the greatest anatomists of the age.

The works of Tiedemann, although quoted by Dr. Horner, do not appear to have impressed upon him their great importance, and the able illustrations of Serres are not even noticed. Dr. Horner describes the brain from its base, a method best adapted to show the parts in connection. The dissection of the brain is a most difficult study for the junior branches of the profession, and it requires very plain directions to make this study at all successful. Dr. Horner might have availed himself of the labours of Laurencet in this part of the subject, and we think, with great advantage.

Sir Astley Cooper has rendered himself celebrated by his great work on Hernia, and Cloquet has contributed much to

its further description. On this subject Dr. Horner is quite defective. Our limits do not permit us to particularise; but we must say, it would have been better to have curtailed other parts of his work, than to have been so loose and defective upon this most important part of surgical anatomy.

The peritoneum has always been a source of trouble to the student. The best account is found in Shaw's Manual. We looked with some anxiety in Dr. Horner's book, for a better exposition than had been yet given, knowing that his opportunities for practical anatomy had been great. We must record our disappointment, and without quoting any passage, we must refer the reader to the description for confirmation of our opinion.

It would have given us great satisfaction to have rendered that homage to the merits of Dr. Horner, which his industry deserves, yet justice has higher claims; and we trust that our strictures will have no other bearing on his mind, than to improve by our suggestions. a work, which might with some little pruning, and a few additions, become a very good text book. Without any special reference, we think that publishing so many text books must be rather burthensome to the students; and we honestly say, that no very substantial benefit can result, except to the author. We do not know in what light this is viewed by others; but we have no hesitation in declaring, that unless a science has been somewhat new modelled, it does not require such a tax upon the necessities of the students, who are with difficulty supplied with the common means of education.

# QUARTERLY HISTORY

OF

# IMPROVEMENTS IN MEDICINE AND SURGERY.

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## Foreign.

### ANATOMY AND PHYSIOLOGY.

*Experiments to determine the interval between the ingestion of various substances, and their appearance in the Urine.**—The experiments which we are about to mention, have been made upon a young man, 13 years of age, affected with congenital prolapsus of the bladder. The prolapsus formed at the lower part of the abdomen a projection of three fingers' breadth, which was red and fungous, always moist and sensible to the touch. The urine issued continually from the ureters, which were completely exposed and admitted of the secretion of the kidneys being collected perfectly pure and unmixed. When the urine was re-examined in its natural state, and when the young man was fasting, it was found of an intense yellow colour, of a nauseous smell and saline taste. It restored to blue the paper of turnsole which had been changed to red by an acid. When any substance had been administered, the urine was collected every ten minutes, until indications of it were perceived. It was then examined every quarter or half hour, until the urine had returned to its original character. In this manner the progressive augmentation or diminution of the foreign substance was observed. The result of these experiments, which were made under the superintendence of M. Tiedemann, are as follows:—

I.—Among the substances swallowed the following were found in the urine: 1, the colouring matter of rhubarb; 2, that of black cherries; 3, that of madder; 4, that of myrtle berries; 5, that of logwood; 6, indigo; 7, the colouring principle of the pulp of cassia; 8, Gallic acid; 9, tannin of the uva ursi; 10, prussiate of potash and iron; 11, a con-

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* Par M. G. A. Stehberger, D. M. Zeitschrift fur Physiologie.

stituent part of the rob of elder, which gives to the urine an intense yellow colour.

II.—The substances swallowed which could not be detected in the urine are—1, the colouring matter of the tincture of turnsole. This substance is destroyed in the alimentary canal, as ascertained by the experiments of MM. Tiedemann et Gmelin; 2, the bitter principle of quassia; 3, the ferruginous tincture of bestucheff; 4, the acetate of the protoxid of iron.

III.—The substances employed under the form of baths, of fomentations, and of embrocations, have not re-appeared in the urine, with the exception of the oil of turpentine and the acetate of potash. The oil of turpentine communicated a violet odour to the urine, merely from the inhalation of its vapour. The other substances tried on the exterior of the body, and which have not passed into the urine, are the aqueous and spirituous tincture of rhubarb, the decoction of logwood and the solution of gallic acid.

IV.—With regard to the time of the appearance of substances in the urine after having been swallowed—madder is perceptible in 15 minutes; indigo, 15; rhubarb, 20; gallic acid, 20; decoction of logwood, 25; the colouring principle of myrtle berries, 30; black cherries, 45; astringent principle of the uva ursi, 45; the pulp of cassia, 55; the prussiate of iron, 60; rob of elder, 75. The author adds, that the time in which substances may appear in the urine may vary according to the state of the alimentary canal, and according to the solubility of these substances in the juices of the digestive organs.

V.—The inhaled vapour of the essence of turpentine is apparent in the urine after an interval of 15 minutes, whilst that of the odour of the violet has not been recognised until 25 minutes after the application of the same substance to the skin.

VI—One may observe that the matters introduced by the mouth and found in the urine a certain period, return in the quantity of substance contained in the urine. This point varies considerably; it occurs in experiments with madder in about an hour; with black cherries, one hour and a quarter; with the tincture of indigo, one hour and three quarters; with decoction of logwood one hour and a quarter; with tincture of rhubarb, after one hour and twenty minutes; with uva ursi, one hour and three quarters; myrtle berries, two hours; gallic acid, two hours and a quarter; pulp of cassia, four hours.

VII.—The complete disappearance of substances from the urine also occurred at different periods. For example, in the experiments with prussiate of potash and iron, it took place after three hours and three quarters; indigo, four hours and a half; rhubarb, six hours twenty minutes; decoction of logwood, six hours three quarters; uva ursi, seven hours twenty minutes; myrtle berries, eight hours three quarters; madder, nine hours; gallic acid, eleven hours; pulp of cassia, twenty-four hours.

It results from these experiments, that the kidneys perform an important part in the process of assimilation, in contributing by their activity to preserve the nominal composition of the blood. Heterogeneous matters

absorbed into the alimentary canal, either by the skin, or introduced into the mass of blood, but which cannot assimilate with it, are expelled by the kidneys, which thus contribute essentially to support the nourishment and life of the body.—*Lond. Quart. Med. Rev.*

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*Effects of Hyoscyamine and Atropia.* By Dr. F. Reisinger, of Landshut. —Hyoscyamine, prepared from the henbane seed, I found to be an extremely powerful substance for the dilatation of the pupil. A small drop of a solution of hyoscyamine (gr. 1 to ℈ss. of water) was introduced into the eyes of some dogs and cats; the eye was scarcely at all irritated in any case, and the pupil was so considerably widened, that, an hour after the application of the solution, only a small ring of the iris could be seen beyond the edge of the cornea; and, after three hours, the pupil appeared as large as the cornea itself, without the power of vision being diminished, or any other bad symptoms being induced, even when the solution was introduced into both eyes. After three days, the dilatation of the pupil first began to diminish, and it was not before the sixth day that the iris recovered its natural state. A drop of a solution of extract of hyoscyamus, containing 5 grains of the extract to half a scruple of water, produced in the same eyes a considerable irritation from the space of from five to eight minutes, which was shown by the secretion of tears, shutting of the eye-lids, rubbing of the eye-brows with the feet, &c.; and a much less complete dilatation of the pupil, which in dogs disappeared after six or eight, and in cats after twenty-four hours. As soon as we learnt by these experiments, which we frequently repeated, that the hyoscyamine did not, in its action, injure either the conjunctiva, or any of the other deeper-seated organs, as, for instance, the retina, I proceeded to apply it on the human eye, and found that a drop of a solution of one grain of hyoscyamine in a drachm of distilled water, applied to the eye of a cataract patient, 71 years old, produced such a dilatation of the pupil, that only a small ring of the iris was apparent. The pupil continued dilated seven days, during which time the old woman could see moderately well, and no irritation whatever was produced in any part of the eye. At another time, a drop of a solution of five grains of extract of hyoscyamus, in half a scruple of water, applied to the same eye at another time, produced a considerable burning, and only a moderate dilatation of the pupil after twelve hours. From other experiments with the hyoscyamine, we obtained nearly the same results. The hyoscyamine, which was obtained from the stalk and leaves of the plant, irritated the eye much more, and was less efficacious than that obtained from the root.

The experiments made with the atropia, under nearly the same circumstances, produced results similar to those obtained from the hyoscyamine. The atropia prepared from the root scarcely appeared to excel that obtained from the other parts of the plant in its efficacy. Both kinds of atropia acted on the eyes of animals very powerfully, so that the iris was almost invisible; but this extreme dilatation did not continue more than two days. Although it may be necessary to make a greater number of ex-

periments to determine which of the two substances is the most active, still there can be no doubt of the superior excellence of the narcotic bases of these plants over the extracts which are generally used. In iritis, and preparatory to the different operations for cataract, they certainly deserve to be used in preference.

Dr. Kopp recommended the extract of hyoscyamus to be introduced into the rectum previous to the operation for fistula in ano, for the purpose of dilating the gut; he also advised the extract to be used in the form of clysters, for allaying spasmodic contractions of the rectum, and in that of ointment to be applied to the mouth of the uterus, for the purpose of facilitating difficult births. In all these cases, and in several others, I would suggest the substitution of the hyoscyamine and the atropia for the extracts. At any rate, these substances ought to be used under these circumstances in preference to opium, which acts with so much irritation on the mucous membranes. Whether the internal use of these new medicines be attended with much advantage remains to be determined by the result of new and careful experiments; still, judging from analogy, I think that, in spasmodic affections, their internal use is preferable to that of opium.

My own investigations into the subject are very limited, and confined to the following observations:—A dog, three months old, swallowed, at ten in the morning, a grain of atropia, obtained from the root of the plant. In half an hour, the ears and tail began to hang, and the dog became inactive, surly, and sleepy. The pupils also were moderately dilated. Towards twelve the dog began to recover itself, and showed a disposition for his accustomed food; but at one the animal became very uneasy, moaned frequently, lay flat on the ground, and slept at intervals. Weakness, and particularly loss of muscular power, were very apparent; the power of vision was also gone, as the dog tumbled over every thing. As the whole of the body was flaccid, and not in the slightest degree tender, I supposed that the moaning was not produced by pain, but by the loss of his sight, and fear of light. At two I took care that he should take some water and vinegar, with plenty of butter. Still the animal continued in the same state; it also now occasionally yawned; the nose was quite dry; the pupil still more dilated; and the palpitation of the heart was strong and rapid. The passage of the urine and feces was natural. At half-past three vomiting of the undigested food took place; at five the dog recovered itself considerably; and at seven he was quite restored. Another dog, just of the same age, swallowed at the same time a grain of extract of belladonna. In half an hour's time the same symptoms came on as in the other, but in three hours he was perfectly recovered. The same dose of atropia and hyoscyamine were given to some half-grown rabbits, but it did not produce the least effect on them. These animals appear to be very insensible both to the external and internal action of the substances. It is extremely curious that, as soon as the slightest particle of these narcotic bodies was introduced into the mouth of a cat, a copious flow of saliva and of foam came on, and at the same time the animal began to chew and loll out the tongue. I con-

clude these remarks with a wish that those medical men who have it in their power will give these principles a trial, and communicate the results of their observations to the public.—*Edin. Med. and Surg. Journal.*

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## SURGERY.

*Cittadini's case of Unconsolidated Fracture of the Bones of the Fore-arm, cured by the Excision of the extremities of the Bone.**—In October, 1819, D. Caneschi, a labourer, had both bones of the fore-arm broken by a blow with a stick, about the lower third of the arm. Under the usual treatment the fracture appeared to unite, and the man returned to his work. In consequence, however, of over-exerting the arm, the newly-formed callus gave way, and in the following January, he was admitted into hospital, with the fracture in a moveable state. After keeping the arm in splints for two months without benefit, attempts were made to excite inflammation, by rubbing with violence the fractured surfaces against each other. This plan was persevered in for three months, the arm being kept in a state of continued extension during the intervals. This having proved equally ineffectual, it was determined to cut off the extremities of the fractured bones. This operation was performed on the ulna, by dissecting the soft parts from the fractured extremities, and cutting about three lines from each of them. It was intended to have performed a similar operation on the radius, but that on the ulna had been so painful and tedious that the patient refused to submit. Severe inflammation of the arm and hand followed this proceeding; terminating, notwithstanding suitable depleting treatment, in extensive suppuration. By proper openings, and counter-openings, the abscesses were cured; at the end of a month the fracture was found to be consolidated; and the patient in time regained the use of his arm.

The preceding case has been quoted by some of the Medical Journals in this country, and passed over without remark. We mention it only because we think it should not be allowed to go forth to the world without a protest against the practice it exemplies. That an operation so painful, tedious, and dangerous, as cutting into the centre of a limb, and dissecting, or rather scraping (for it can be nothing else), the soft parts from around the two ends of a bone, should be employed to effect an object which can be invariably attained by a measure so simple and expeditious as passing a seton between the disunited surfaces, betrays either gross ignorance of the present state of surgery, or a still more lamentable deficiency of judgment.—*London Quart. Med. Review.*

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*Case of Axillary Aneurism, in which the Subclavian artery was tied by M. Dupuytren.*—The history of this case is given in the second number of the "Repertoire Generale." As it is not without interest we shall shortly state the particulars, eschewing the heroics and the prolixity which encumber

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* Omodei's Annali Universali di Medicina, No. 111, Marzo. 1826.

the original. The subject of the case, Charles Lechevalier, aged 36, and by trade a carpenter, was admitted into the Hotel Dieu on the 27th February, 1819. He had been a soldier in the French army, and in the year 1811, whilst serving in Spain, received a thrust with a back sword, (*espadon*) at the posterior part of the left shoulder. There was an instant gush of blood—he fainted—the bleeding stopped—he was taken up—the wound was dressed simply, and by the end of three weeks had completely healed, without the slightest return of bleeding. After two months he discovered in the left arm-pit a small pulsating tumour, not larger than a nut. In the course of two years it had attained the size of a hen's egg, and the pulsation had become stronger. From the exertions attendant on a journey of some hundred miles, performed on foot, the tumour underwent a rapid increase; and when he entered the Hotel Dieu it was larger than the head of a new-born child; superiorly it was in contact with the clavicle, which was even raised from its natural situation. Its pulsations, which were very forcible, could be stopped by compressing the artery firmly with the finger, where it passes over the first rib. After some hesitation as to what course he should pursue, M. Dupuytren determined on tying the subclavian artery above the clavicle at the point where it runs between the scaleni muscles. The only circumstance in the operation worthy of remark is, that to get at the artery, M. Dupuytren thought proper to cut across the anterior *scalenus* at its origin. This is a proceeding not adopted by British surgeons, who go down on the artery much more conveniently just where it emerges from behind the outer margin of the scalenus. The vessel being insulated, a silver director, curved in the form of a quadrant, was passed beneath it, and a ligature formed of three silk threads twisted together, was applied; no ligatures of reserve were used.* The pulsation of the tumour instantly disappeared. In the course of the day the patient, complaining of some pain in the throat, was (very properly) bled. From this time he went on towards recovery without any bad symptom. The ligature was discharged on the 11th day. On the 17th day the wound had began to cicatrize, the suppuration was diminishing, and the tumour had contracted to one-third of its former dimensions. The natural temperature, the sensibility, and muscular energy of the limb were gradually restored, but the pulse at the wrist did not return. In the course of a few months he was able to resume labour as a carpenter. After an interval of three years, and in consequence of over-exertion, the remaining nucleus of the tumour was seized with inflammation, which terminated in suppuration. At the end of a fort-

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* The writer of the case, M. Marx, says that M. Dupuytren did not employ any ligatures of reserve, because he was convinced of their inutility, and even of their danger. If he had attained this conviction in 1819, it is somewhat remarkable that in 1821 we should find him with them in full employ. The writer of this article, during his attendance at the Hotel Dieu, in 1821, has repeatedly seen him make use of ligatures of safety.

night a spontaneous opening formed, giving issue to a great quantity of pus, and of a substance having somewhat the colour and consistence of resin. This was evidently the remains of the unabsorbed and unorganized coagulum, which had acted like a foreign body in exciting inflammation. The opening again closed, and the patient has since remained free from complaint.—*Ib.*

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*Mr. Earle's case of Bronchocele, in which the superior Thyroid Arteries were tied.**—The ligature of the thyroid arteries originally introduced by Walther, of Bonn, as a means of checking the enlargement of the thyroid gland, has been practised but seldom by English surgeons. Mr. Earle's case being, therefore, interesting, we subjoin an abbreviated history of it.

"Jane Larkins, aged 17, a native of Malling, near Maidstone, first observed a swelling on the front of the neck, about the age of 13. It increased slowly till 14, when she began to menstruate. Her menstruation continued regular for two years, and during that time the tumour had considerably diminished; at 16 her menstruation again became irregular; and during the following year the tumour had enlarged rapidly. She was admitted into Bartholomew's hospital, 5th December 1822, under the care of Mr. Abernethy. The treatment was chiefly directed towards the improvement of the general health and secretions, which were much disordered. The tumour underwent a slight reduction in size, but her health appearing to suffer from confinement in the hospital; and the pulmonary complaints, to which she had previously been subject, having increased, she was recommended to return to the country. On the 15th July following, she again returned, and was admitted under the care of Mr. Earle. She stated, that since her dismissal the tumour had increased, particularly during the last two months, causing so much difficulty of respiration as at times to threaten suffocation. When examined, the bronchocele was found evidently much increased in size; the superior thyroid arteries were greatly enlarged, and their pulsation was augmented in force, particularly that on the right side, which communicated to the finger a peculiar thrill, leading to the supposition of its coats being diseased. She was incapable of swallowing solid food—pulse 120—bowels costive—the catamenia had not appeared for five months. The cough and pain of the chest had returned with aggravation, and she complained of constant head-ache and drowsiness. Trial was made, during a fortnight, of leeches, evaporating lotions, purgative and mercurial medicine. She also took liquor potass. hydriod. ℥x. ter in die; but this was soon discontinued on account of producing nausea.† The tu-

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* London Medical and Physical Journal, Vol. 1. No. 3.

† It may be thought, and we ourselves are inclined to think, that the powers of Iodine did not in this case receive a sufficient trial. The occurrence of nausea scarcely formed a valid reason for its discontinuance, or at least did not pre-

mour, notwithstanding, continued to enlarge, and the obstruction of respiration became so great as to threaten suffocation. On the 1st of August, Mr. Earle applied a ligature to the right superior thyroid artery, (it being more enlarged than the left.) It was healthy, but nearly equal in calibre to the carotid.

"The most acute pain in the head immediately followed the tightening of the ligature. The pulsation in the tracheal side of the artery diminished materially, but did not entirely subside. About half an hour after the operation, the pain in the head continuing, twenty ounces of blood were taken from the arm, which afforded some relief. Cold cloths were directed to be constantly applied to the tumour, and the patient's head was much elevated with pillows.

"At four p. m. the pain had abated, but there was much drowsiness; the pulse at the wrist quick, but not full—the carotids beating with greater violence than before the operation, the pulsation being evident at some distance along the course of the thyroid up to the ligature. Saline purgatives, with tincture of digitalis, were ordered for her.

"August 3d. She passed a bad night. Her pulse was rapid, tongue furred, and the drowsiness amounted to coma—the pulse in the carotids greatly exceeding in proportion that at the wrist. The bowels were moved with calomel and jalap, and twenty leeches were applied to the temples, which continued bleeding the whole day, and afforded great relief. In the evening, all her bad symptoms had abated, and her breathing was greatly relieved. She passed a good night, and continued to improve.

"On the 6th, the tumour was measured, and found to be considerably smaller—respiration and deglutition performed with comparative facility—the pulsation in the thyroid and whole tumour much diminished—on the tracheal side it had ceased, and the left thyroid beat with much diminished force. The cough had nearly left her.

"On the 11th, the neck was measured again, and the tumour was found to be much diminished. The portion of the artery between the ligature and the carotid had ceased to beat. The patient stated herself to breathe and swallow with greater ease than she had done for the last two years. The ligature came away in the evening in the poultice.

"From this time to the 24th, every thing went on favourably. On mea-

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vent its being used in some other form, as that of friction, with the ointment of the hydriodate of potash; a mode of employing it now generally preferred by Coindet and others, to its internal exhibition. It ought, however, to be observed that the *goitre* in this case evidently belonged to that species which Walther has termed the aneurismal goitre, distinguished by the great enlargement of the arteries, and the pulsatory character of the tumour, a species which he has farther generally found rebellious to Iodine, and every other measure short of the ligature of its vessels.

suring the neck, the tumour was found to have diminished three and a half inches in circumference, principally on the right side.

"As the girl was anxious to return home to her friends, and her health began to suffer from confinement, she was dismissed on the 28th of August, with an understanding that if the tumour at all increased, she would return, and have the artery on the left side tied.

"On the 11th of September, she came back, in consequence of her finding the tumour remain stationary, and the artery on the left side pulsate with increased force. On the 17th, the artery was secured; it was healthy in its texture, and about the size of the radial artery. The patient suffered a good deal from hysteria and apprehension before the operation, dreading a return of the severe pain in the head and coma. Leeches had been previously applied, and her system much depleted by saline purgatives. No alarming symptoms followed the application of the ligature. The diminution in the size of the tumour was not nearly so great nor so rapid as after the first operation. The ligature came away on the 1st of October, on which day the menses re-appeared, after an interval of nearly seven months.

"On the 10th, the patient finally left the hospital, having no cough, no impediment in swallowing, and respiring with perfect freedom. The tumour was evidently smaller and softer, and appeared more divided in its texture. I heard from her in November, and again in January, 1824, at which time the tumour continued slowly to decrease, and her health was greatly restored.

"The fortunate termination of this case was the more gratifying, as it was the general opinion, before the first operation, that all attempts would be in vain, in consequence of the supposed diseased state of the girl's lungs."—*Ib.*

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## PATHOLOGY.

*On two New Species of Gravel.*—M. Majendie has, in one of his works pointed out the relation which exists between the quality of the ingesta and the nature of the constituent principles of the urine. He has also shown the connexion existing between the chemical character of the urine and the nature of the particles of sand which are passed from the urethra. The red gravel, which is invariably formed of uric acid, and is highly painful to the subjects of it, is (like gout) never found but in those who are enormous eaters of animal food. The excess of urea generated in these persons disposes to the formation of urate of soda in the articulations, that is, to gout as well as gravel. M. Majendie has brought forward some new facts in support of his theory. One in the case of an epicure, who, being charged with a political mission to a country remarkable for the pleasures of the table, after having indulged to excess, thought to remedy any evil that might occur, by eating every morning a large plateful of sorrel. After persevering in this course for twelve months, this political epicure experi-

enced very severe pains in his kidneys and ureters, which were followed by the expulsion of a stone from the urethra, of one half inch in length, and one sixth of an inch in thickness. The stone was of an orange colour, and very hard. It was found to consist almost entirely of pure oxalate of lime. It is evident that the oxalic acid, contained in such quantity in the sorrel, had been the originating cause of the stone.

M. Majendie has made known another species of gravel, the origin of which is not so evident. In the disease which accompanies it, the deposit in the urine is sometimes a powder of a white colour, and very fine, mixed with a large proportion of small hairs, the length of which varies from one sixth to one twelfth of an inch. At other times the gravelly particles are whitish, unequal, and of so little consistence, that they break between the fingers without any separation of the small fragments which are held together by these small hairs, and remain united in a kind of cluster. These hairs can be separated by maceration. M. Majendie has given the name of the *hairy gravel* to this species of the complaint. The constituent principles of this kind of gravel have been ascertained by M. Peletier to be phosphate of lime, with a small portion of phosphate of magnesia and uric acid. M. Majendie attributes the phosphate of lime also to consumption of animal food in immoderate quantity. With regard to the hairs, he confesses his entire ignorance how they can originate. This physician recommends in such cases an exclusive vegetable diet and the employment of alkalies; and in terminating his memoir on this subject, he remarks, "We may perceive what utility may result from a knowledge of the origin and chemical constitution of calculi, and of how much importance it is for those affected with stone or gravel, who become the subjects of operations, to have the calculi analysed, and to trace back their formation to their origin. *Then only can they hope to be cured of a malady of which the extraction of stone from the bladder is only a dangerous palliative*—which leaves them, as daily experience demonstrates, exposed to all the chances of relapse. This secret of science ought to attract the attention of physiologists and physicians.

The editors of the work from which we have made this extract agree entirely with M. Majendie in this last sentiment. "We have seen," they remark, "children who have been operated upon even to the third time for stone; besides, it is well ascertained that there exists what is called a calculous diathesis, proper to every kind of calculus, and which renders the operation of lithotomy more or less dangerous, according to the nature of these concretions. In fact Dr. Marcet has shown that in operations for stone the ratio of deaths, according to the nature of the calculus, is—

1 Patient affected with mural calculus, in - - - - - 20
1 with calculi, in which uric acid predominates, in - - 7
1 with fusible calculi, often mixed with triple phosphate, in 6
1 with calculi of pure phosphate of lime, or alternating with triple phosphate, in - - - - - - - - - - - - 4
1 with calculi formed of distinct alternating layers, in - 3

The calculus of uric acid constitutes a third part of the whole number found in the urinary passages, the fusible and mural calculi together forming the remaining two-thirds. We perceive by this statement that the mortality is in the ratio of the nature of the calculus; and such is the difference, that it is more than six times greater for the calculi, formed of distinct alternating layers, than for those of oxalate of lime, which leads us to imagine *that in the production of the former several morbific affections are united.* These facts are well worthy of the attention of the profession; there are many who already agree with M. Majendie on this point. We know several for whom we have made analyses of the calculi which had been extracted, who have subsequently submitted their patients to a treatment and regimen calculated to prevent the return of the disease."

M. Segalas, in a note on this subject, laid before the Académie Royale de Médecine, observes that he has found the use of an acidulated liquid, such as of beer, taken in large quantity, produce the discharge of calculi composed of phosphate of lime. From this he is inclined to believe that alkaline remedies are only useful in cases where the calculi are formed of uric acid; where they are composed of phosphate of lime he would have recourse to acidulated drinks.

There is a case given in the "Revue Medicale" of September, which tends to confirm still more this opinion. It is related by M. Genois, a provincial surgeon in France. The patient was fifty-two years of age, and had for several months a degree of vesical tenesmus, with severe pain in the urethra, and at the extremity of the penis. He was sounded, and it was found that there were several stones in the bladder, which were conceived to be of the size of a hazel-nut. Two drachms of the supercarbonate of soda were prescribed to be taken daily in a quart of water. On the eighth day of the treatment the patient experienced very sharp pains, accompanied with retention of urine. The cause of the latter symptom was found to be a small calculus in the urethra, which was pushed back into the bladder with a sound. The use of the soda was continued, by which the painful symptoms were mitigated. At the end of a month ten calculi were discharged, with very little pain, by the urethra. The calculi weighed each about four grains, were of the size of small peas, of a spherical shape and smooth surface. They were, on being analysed, found to consist of uric acid, with some animal matter. The patient has since been free from all his former symptoms.—*Ib.*

*Case of Epilepsy cured by Small-pox.*—In the course of a variolous epidemic, which prevailed in 1820, at Basingfield, Dr. Stuede* had occasion to observe a young girl, seven years of age, who had been subject, during five years, to periodical epileptic convulsions, and who was delivered from them by an attack of variola, which ran its usual course in this patient, and assumed a very mild character; after which she was no longer the subject

* Bulletin des Sciences Med. 1826.

of epilepsy. Several examples of this kind are on record, and experiments have also been tried in some hospitals, by inoculating with variolous matter the epileptic patients, but hitherto without success.—*Ib.*

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*Cherry-stone in the Bronchi.*—Dr. Webster, in the "Medical and Physical Journal," relates the case of a boy who had swallowed a broken cherry-stone. Being frightened at the moment, it slipped into the trachea, and occasioned a violent fit of coughing, with sense of suffocation. He had also severe pain, and a slight swelling at the upper part of the trachea. These symptoms remained during the night, and in the morning he felt as if it had descended into the chest.

Twelve days after this the patient came under the care of Dr. Webster; the symptoms still continued, or were rather more aggravated, and there was a darting pain under the sternum.

From examination with the stethoscope it appeared that the foreign body was situated in the left bronchus at the bifurcation of the trachea, obstructing almost entirely the passage of air into the left lung. Taking advantage still further of the diagnostic facilities afforded by the stethoscope, Dr. Webster found that the lung, although collapsed, was sound. By percussion on the left side of the chest, a deaf sound was perceived, but in the right cavity every thing seemed healthy. There was a constant palpitation of the heart. By occasional moderate bleedings and the application of leeches, together with a mixture containing squills and tartarized antimony, the inflammation was kept in check. The symptoms, however, varied little till the 68th day. The cough, though alleviated, had never left him, and he was so weak as to be unable to move; the pulse was constantly quick, and he had some shivering, indicating the formation of matter.

The stethoscope was frequently employed to ascertain the condition of the lungs, and on the 30th day the report was—"On percussion, and on applying the cylinder the air appears now to pass more freely into the left lung, particularly into the upper lobe; but the lower one is still further collapsed, which would lead to the supposition that the stone has descended lower into the bronchi, and by thus freeing one of its branches, the air is allowed to pass more freely than it did into the left lung."

On the morning of the 68th day, the patient felt as if about to be suffocated; he had pain extending to the left shoulder and upper part of the neck, followed by sickness and violent fits of coughing, whereby he expectorated more than a pint of fetid pus, mixed with streaks of red blood, and in the midst of which was found the cherry-stone. Great exhaustion followed this effort, and for an hour afterwards life appeared to be extinct, but he gradually recovered, and although he spit pus copiously for a week, he was able to walk out on the 80th day, and soon after left town perfectly convalescent.—*Ib.*

*Successful Inoculation of the Measles.* (*Bibliotheca Italiana, Agosto* 1825.) This inoculation, which was performed with success by Home and Horst, and recommended by Vogel, Percival, Brown, Monro, and Tissot; but was afterwards condemned by Cullen, Girtanner, Rosenstein, Vaidy, and Montfalcon; was again employed with advantage by Professor Speranza in an epidemic which prevailed in the territory of Mantua in 1822.—Six boys in the house of Industry, and afterwards he himself, were inoculated with the most evident effect in propagating the disease, which in all followed a mild and regular course. A repetition of the experiment, by himself, and others, had the same fortunate issue. The inoculations were performed in the following manner:—A slight cut was made into one of the most vivid of the large spots with a lancet, the point of which was covered with the blood effused. With this some small incised punctures were made on the arm, and a proper bandage applied. The phenomena of inoculation commonly appeared in a few days.—*Edinb. Med. and Surg. Journal.*

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*Inoculation of Purulent Ophthalmia.* (*Gerson and Julius's Magazine, July and August*, 1825.)—Dr. Kirkhoff, in a communication on the ophthalmia, as it appeared among the troops of the Netherlands, used every means of ascertaining whether it was contagious or not. Several times he permitted persons afflicted with ophthalmia to sleep with wounded, venereal, and other patients, and he never saw the ophthalmia communicated in this way. He inoculated some with the matter which flowed from the eyes of those affected with the ophthalmia; and although he merely touched the edge of the eyelid, in such manner that it could not affect the eye as a foreign body, ophthalmia followed in one, two, or three days. One of the physicians under him, Dr. Hupach, in order to prove his firm conviction that the disease was not contagious, made the experiment upon himself; but, in twenty-four hours, was seized with ophthalmia in so violent a degree, that he nearly lost his sight.—*Ib.*

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## MATERIA MEDICA AND PHARMACY.

*Employment of Chloride of Lime as an Antiseptic, and for the Destruction of Putrid Effluvia.*—This substance, well known in this country as the bleaching powder of Mr. Tennant, was employed at Paris four years ago, to remove the effluvia of infectious disorders and of putrid substances, by M. Labarraque, an apothecary in Paris. His first experiment was made at the Morgue, on one of the dead bodies placed there as usual to be claimed by the relatives. Although a high degree of putrefaction existed, yet in one minute after the application of this substance, the smell was almost destroyed, and by another washing, it was entirely removed. This effect has been repeated in numerous other instances of effluvia, arising from a variety of causes, and the results have been so favourable, and regarded as of such beneficial consequence by the Parisian police, that a report on this antiseptic, lately delivered by Professor Marc, has been

adopted by the French Government, who have recommended its use in all their hospitals.

The mode of using this substance is, by dissolving half a pound of it, viz. the chloride of lime, in about twenty or more pounds of water; this at least was the proportion in which it was applied to the putrid body at the Morgue; and it has been remarked by the superintendant of that place, that bodies treated with this solution remain afterwards free from putridity for a longer time than others. Hence, it has been used in the dissecting-rooms in Paris, and more lately in London, as a means of preserving subjects. It has been also employed as a remedy by the French surgeons in cases of wounds and tumours, in which any septic tendency existed; such as in sloughing and phagedenic ulcers, and hospital gangrene, and is also applied, more or less diluted, as a lotion in a variety of cases of ulceration whether common or severe.

It is, however, chiefly on account of its quality as an antiseptic, and of its power in disinfecting hospitals, houses, and clothes, that we must regard this chemical substance as a valuable addition to the Materia Medica.—*Lond. Quart. Med. Rev.*

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*Quick Method of preparing Mercurial Ointment.*—A process for making this ointment in a very rapid manner has been adopted by M. Chevalier. It consists in agitating mercury in a glass bottle, with melted lead, at a temperature of 60 deg. Reaumur, and afterwards triturating the mixture in a heated iron mortar. In this manner an ointment may be procured in less than an hour, which formerly could not be obtained but by trituration continued for several days.—*Ib.*

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## MEDICAL JURISPRUDENCE AND POLICE.

*Comparative diseases of the Tailors, Carpenters, and Bakers in Hamburgh.* (*Gerson und Julius Magazin der auslandischen Literatur, July, August*, 1825.)—In this free city are two small hospitals supported by the free-masons. That appropriated to the male sex was intended for labourers; but, in 1805, began to be resorted to by the tailors, and, in 1811, by cabinet-makers; but the latter did not use it after September 1824. The total number of tailors treated was 785; of cabinet-makers, 511; and of bakers only 71;—and the deaths were, 84 tailors, or 1 in 9; and 21 cabinet-makers, or 1 in 24; bakers 4, or 1 in 18. Diseases which are apt to prove fatal to weak persons were much more fatal to tailors than cabinet-makers; of those affected with nervous fever, one-third of the tailors, and one-seventh of the cabinet-makers died. Of twelve cases of abdominal inflammation, seven tailors died, while five cabinet-makers recovered. One-half of the deaths among the cabinet-makers was from phthisis; one-third of the tailors. The following table exhibits the proportions affected with the principal diseases, compared with the total number of patients exercising each trade:

| Diseases. | Tailors. | Cabinet-makers. | Bakers. |
|---|---|---|---|
| Catarrhal fever, | one in 6 | 9 | 6 |
| Rheumatic fever, | 15 | 14 | 6 |
| Nervous fever, | 12 | 24 | 18 |
| Gastric fever, | 12 | 12 | 18 |
| Intermittent fever, | 10 | 17 | 18 |
| Inflammatory fever, | 98 | 64 | — |
| External injuries, | 98 | 22 | 35 |
| Ulcers, | 98 | 12 | 14 |
| Ascarides, *fingerwurm*, | — | 46 | — |
| Arthodynia (*Gicht*), | 27 | 26 | 10 |
| Pectoral disease, | 10 | 10 | 14 |
| Phthisis, | 22 | 32 | — |
| Hæmoptysis, | 4 | 102 | — |
| Asthma, | 131 | 170 | 24 |
| Hepatitis, | 98 | 170 | — |
| Icterus, | 60 | 78 | — |
| Hemorrhoids, | 98 | 255 | — |
| *Deaths*, | 9 | 24 | 18 |

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*Extracts from the Bills of Mortality of Berlin for the year* 1825. (*Hufeland's Journal der practischen Heilkunde*, April 1826.)—In the year 1825 the population of Berlin, including the military, was 203,470. The births were 8033, or one in twenty-five of the population: and of these 4127 were males, and 3906 females—6876 legitimate, 1157 illegitimate. The deaths were 6426, or one in thirty-two of the population; of these 3494 were males, and 2932 females—2102 under twelve months, 3222 under ten years, 3426 under twenty years, 599 above seventy years. The still-born were 381, of which 215 were males, 166 females. The marriages were 2126. The births exceeded those in 1824 by 502, the deaths were fewer by 40, the marriages more numerous by 325.

The deaths, within the first twelve months among the illegitimate children amounted to one-half the births, and among the legitimate children to one-fourth only. The difference in the chance of life between legitimate and illegitimate children, is farther shown by the mortality among those under ten years, and by the proportion of still-births. The illegitimate children form only an eighth of the births, but a fifth of the deaths before the close of the tenth year: the proportion of still-births among illegitimate children is a tenth, among legitimate children only a twenty-sixth. On comparing these proportions with those formerly assigned by Dr. Casper for the years 1819–22, inclusive, (see p. 174 of our last volume) it appears that there is a diminution in the proportion of illegitimate births from 16 to $12\frac{1}{2}$ per cent—but an increase in the deaths among the illegitimate from $49\frac{1}{2}$ per cent—before the fifteenth year, to 50 per cent. before the tenth year—and also an increase in the proportion of still-births among the illegitimate from $8\frac{1}{3}$ to 10 per cent. These facts are very curious. In our re-

view of Caspar's Statistics we showed, that as illegitimate births increased in Berlin, the proportional mortality among illegitimate children decreased very remarkably. If the facts above-mentioned are confirmed by future experience, it will follow that this proportional mortality will go on increasing as the proportion of natural births decreases again. The cause is not far removed from observation.

In the list of the causes of death the most interesting facts are the following. Forty-seven women died in child-bed, that is, the deaths in child-bed were one in 137 of the general mortality, being somewhat more than between 1819 and 1822. Of the 47, 22 died of puerperal fever. Sixty died of measles, 108 of scarlet-fever, 1076 of various inflammatory fevers, 416 of consumption, 358 of dropsy, not reckoning hydrocephalus, of which there died 77; 558 of appoplexy, 7 of small-pox, 75 of accidents, 47 of suicide. The mortality lists of Berlin will henceforth be of very great value; for, by a municipal regulation, the friends of every deceased person, when they announce the burial to the proper church-officers, are required after this to fill up a schedule of particulars, and likewise to present a certificate of the cause of death by the medical attendant.—*Edin. Med. Surg. Journ.*

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*Poisoning with Foxglove.* (*Morning Chronicle, October 30th and 31st*, 1826.)—The following case appears very interesting, and well worthy of notice, although the circumstances have not hitherto been accurately detailed. It is the first characteristic example we have read of the acute form of poisoning with digitalis; and it illustrates well the double narcotico-acrid properties of the poison. Jacob Evans, a herbalist and quack-doctor, was tried at London for manslaughter, by administering to an apprentice lad an over-dose of foxglove. The lad had been troubled for some time with a trivial complaint, for which his mother consulted the prisoner Evans. He recommended a strong decoction of digitalis to be taken as a laxative; and, accordingly, the lad took one morning about six ounces of a decoction prepared by the prisoner. Very soon afterwards he was attacked with sickness, vomiting, severe pains in the bowels, and afterwards with purging. Towards the afternoon he became lethargic, and slept profoundly several hours. About midnight he awoke still affected with vomiting and pain in the bowels. During the night he was seized with general convulsions. A medical man, who saw him early in the ensuing morning, found him violently convulsed, with the pupil dilated and insensible, and the pulse slow, small, and irregular. Coma soon succeeded, and death took place twenty-two hours after the drug was swallowed. On examining the body, the external membranes of the brain were found much injected with blood, and the inner coat of the stomach was red in some parts. But the other organs were in a healthy state. The prisoner Evans was found not guilty, the judges being of opinion, that, as the friends of the deceased applied for his advice, the act did not come under the statute regarding manslaughter.—*Ibid.*

## Domestic.

*Improved Scale of Chemical Equivalents.*—An improved scale of chemical equivalents has recently been published at Albany, under the direction of Mess. L. C. Beck and J. Henry. It is 20 inches in length and contains the names of upwards of 130 substances. Hydrogen is assumed as the radix, in which respect it differs from the original scale of Dr. Wollaston. Great care has been taken to render this instrument accurate; and this, together with the neatness of the engraving, must render it worthy the attention of Chemists. A few instructions accompany the scale for students who are not familiar with its use.

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We publish the following as a novel and interesting case, in which a respectable physician was subjected to the vexations of a protracted law-suit. We do not doubt all our readers will heartily concur in the justice of the verdict of the jury.—*Ed.*

*Michael O'Neil* vs. *Gerard Bancker.*—This cause came on for trial at the City Hall in the city of New-York, before the Circuit Court held in the First Judicial District, by his Honour Ogden Edwards, Esq. on Monday, the 5th day of February, instant.

*Mr. Wylie* opened the case on the part of the plaintiff, by stating that the suit was brought to recover damages of the defendant, who was a Physician employed by the City Dispensary in the Spring of 1824, to vaccinate those in the district assigned to him, who were exposed to small-pox, then prevailing in this city. That Dr. Banker for such service, had received one hundred dollars—that he had vaccinated a great number of patients—and that about the latter end of April of that year, he called at the house of the plaintiff, who was absent—saw his child, about two years of age, and told a Mrs. Baxter, who had the charge of him, that he had been sent to vaccinate the child; she objected on account of the absence of the father, and she, by threats that he would complain of her, at length permitted him to proceed—that his first attempt was ineffectual; that he called in eight days and again attempted to vaccinate the child; that he treated the child of a Mrs. Boyle and a Mrs. Rankin, one living in the house, the other next door, in the same manner; that he saw the child of O'Neil in eight days—there was a pustule on the arm, and the child very sick; this was on Tuesday or Wednesday: he was sent for on Friday, and came in the evening; there was then some sprinkling or rash on the breast—he said the child might have the varioloid, but it would be light; he prescribed snake-root and magnesia, and discontinued visiting the child; that on the Monday following, Dr. Blachley was called in by the father, and that the child was then unequivocally labouring under small-pox, which Dr. Banker had communicated to it by inoculation, instead of vaccinating as he was employed to do; that the child lingered until the month of Sep-

tember following, when it died; and exhibited during the greater part of the interval a sight shocking to humanity; that whatever the disease was, it was communicated to the child through the negligence or want of skill of the doctor; and the father was for that entitled to damages in the present action.

Jane Baxter.—Lived in Spring-street. Her family consisted of herself, her husband, her son, O'Neil and his child of two years old; a fine healthy child. Saw defendant at her house when he went to vaccinate. She had the child from eight months old at board. Defendant called to know if she had any children to vaccinate. She said not, that hers had been vaccinated. He asked if that beautiful child had been vaccinated. She said no; but the child was motherless, and father absent. He said, she should be more particularly careful of it—would she wish to see it take the small-pox and die? She said no. He said he would do it, and stand between her and the father for the consequences. He said, the corporation had the goodness to form the plan of vaccinating all children, to prevent small-pox spreading. He vaccinated the child—it dried away. He called some days (perhaps five or six or seven) after, and there were no signs of it. He then vaccinated it again the second time, or called it so. Mr. Frost and Mrs. Boyle were present. Witness told the father of the first vaccination. Does not know he made any objection; he said nothing in favour of it. The first and second time he vaccinated two others at O'Neil's; Mrs. Boyle's child was one, in the same house, and Mrs. Rankin's, a coloured woman, who lived next door—the coloured child was about seven years old, and Mrs. Boyle's about a week old when first vaccinated. He said he should call again at the time he knew they would want attendance. He did not call again until three times sent for. The second inoculation was on Tuesday or Wednesday, she believes, early in the week. The child sickened next week, about Wednesday; was cross. She showed the arm to the plaintiff, that it had taken; it looked red and angry, and swelled—it looked inflamed. The father thought but little was the matter with the child, as it was going about. Next day the child was worse, she made the father go for defendant; he was not within. Next morning (Friday) he came—she asked if it was the small-pox. He said, no; the child might have the varioloid, and it would be light. Does not recollect that he examined the arm—she showed the breast, which had an eruption. He then said it might be the varioloid, and he would have it mildly; he prescribed snake-root and magnesia, and said he would be well in a few days. The father got the snake-root and magnesia at Dr. Blachley's. Next day the eruption broke out, and it was May-day, when they were obliged to move. They called no other doctor till Monday or Tuesday, and then called in Dr. Blachley. The father went for Dr. Banker, could not find him, and was informed he had moved away. Witness only moved from one story to the other in the same house. When Dr. Blachley saw him, he said the child was very dangerous. The

other child broke out about the same time, but she did not see it often. Took Dr. Blachley up to see the black child, and it was in the same situation: it was not vaccinated in witness's room. Plaintiff's child died 9th September following. Does not know how long her child lived—she moved to the village. Dr. Blachley said it was the small-pox. Mrs. Boyle's child died before O'Neil's, as she is pretty confident. Saw Mrs. Rankin's child when she took Dr. Blachley to see it. It was attended by Dr. Ayre. Dr. B. said it was small-pox.

Plaintiff's child was in a dreadful state—it smelled so, the people talked of moving out—it required constant attendance—could not regularly milk her cows, and the neighbours would not come to buy—it was covered with a crust—skin and hair came off—the jaw bone dropped out of his head—it was kept as clean as possible; but in one hour the linen would be so offensive, as to render it necessary to have it removed. Frequently saw the doctor go by—one day in June or July, her husband called to him to come and see the situation of his family. He asked what for? Witness's husband asked him where he lived? He replied it was none of his business, and walked on. He came a week before the child died, in company with Dr. Hosack. Witness desired him to look and see what he had done. Defendant asked, did you let this child die, and not send for a physician? Witness answered, they had sent for a physician, and it was attended. He never called to see whether they had. He moved to Jersey, and in crossing the ferry, he passed the house often. She told him she had incurred the anger of the child's friends, that she did not drive the doctor forcibly down stairs. He looked on the child and seemed to be softened. Dr. Hosack examined the child—the ulcer of the jaw was open that you could see into his throat. The child was so ill, he did not examine it much. He was there perhaps about fifteen minutes. He did not look at the child's arm. They both appeared affected, and had but little to say. Believes Dr. H. said it was dreadful. Believes the defendant did not visit either of the other children. Dr. Harriott called to see the child twice, without being sent for. Once brought Dr. Watts with him, some days before the child died. He had a spasm so disagreeable, that Dr. Watts staid out of the room, and came in after.

*Cross-examined*—Witness had lived in that house one year. Dr. Blachley was the physician who generally attended. He lived between Spring and Vandam in Greenwich-street. There were four families in the house. Mrs. Lane, six or seven children; never all at home together: Turnbull and wife, four children: Callaghan and wife: Mrs. Boyle and three children—in all twenty-one in the house. There was small-pox in the neighbourhood, and great alarm there, after plaintiff's child was inoculated. No one but witness went near. Witness never asked any one for money for her compensation. Never heard a sum stated that she ought to get in case of the child's recovery. The arm broke out before the child sickened, some two or three days after the vaccination. Plaintiff was present, when defendant came and saw the child and prescribed, and he said he would

run up to Dr. Blachley as the nearest. The defendant said he was liable to a fine, if he did not vaccinate. The second vaccination witness said, she would rather he would not do it: he did not repeat he would stand between her and the father.

*Direct.*—On the next Wednesday, the child was cross; she showed the arm to the father, and said she believed it had taken; the arm looked angry, and little things round the pustule, but not like it. Frequently the defendant passed, (the neighbours said so) as he came over. Plaintiff told witness he understood he had moved to the country. Does not remember that defendant told witness he was moving to the country. On Saturday night, thinks the plaintiff knew defendant had moved to the country. Thinks the hole was in the child's face when Dr. Hosack called; never gave defendant an angry word. The suit was depending when they called.

Cornelius Blachley.—Has practised medicine since 1794. Has had occasion to be well acquainted with small-pox, and vaccination, about twenty-four years ago at Hackensack—was called to visit plaintiff's child about the time of the eruption—it had been out two or three days—examined the inoculated part—it had every appearance of inoculation—examined also a black child. The inoculated appearance of cow-pox differs essentially from the small-pox, so that no one acquainted with the two diseases can mistake. The inoculated part was red, and contained a fluid verging to pock; it was not flattened, nor containing the pellucid matter, and many pustules were round it. The small-pox is elevated like a boil; and has pustules: saw a child, it had the small-pox, and was inoculated at the same time; Mrs. Baxter took him to see it. The disease progressed much the same in both; but the other child had it much lighter. Witness attended the child; the eruption had taken place a day or two before; all the injury was done when the witness was called, after the eruption was out. From the time and the appearance of the inoculated part, believes the child had been inoculated by mistake. Inoculation and vaccination in the same subject seem to render them distinct diseases; the pock began to flatten after he visited; the eyes very much affected; it lost its eyesight, and then the jaw was taken out. When the eruption is about taking place, venesection and cathartics would diminish the number of pock.

If Dr. Banker had attended regularly, it would have been better. In the kine pock, every physician should visit on the 8th, 11th and 15th days, or he does not do justice. The varioloid it could not be; that is a complaint modified out of them, and peculiar to persons who have had one of them before.

*Direct.*—The eruptive fever commences about the tenth day, and the eruption about the thirteenth. If the child had the small-pox in the system, still the arm should put on the vaccined appearance. If the physician was aware of the small-pox, he might administer medicines to alleviate—but if he vaccined, he might not suspect small-pox, though he would see matters were wrong, and that it was not genuine kine pock.

*Dr. Quackenbos.*—Graduated in 1802. Has known Blachley eight, ten, or fifteen years. He is a man of good standing and science, and does a deal of business. Heard his statement of the arm. Has no doubt the child's disease was inoculated small-pox. The doctor ought to see the patient on the eighth day, and afterwards to ascertain the disorder. A practical man cannot compound vaccine and variolous pustules. If the defendant had attended on the ninth or tenth day, he must have ascertained it was not kine pock, and possibly might on the sixth or seventh. The attendance is only necessary to ascertain that the disease is genuine. After the nurse showed the breast, he could not well say what the disorder was; but such an appearance would have put witness on his guard. He would not have supposed he gave kine pock. Takes it for granted that the defendant examined the arm. He should have notified the family of the discontinuance of his visits. Physicians often carried the two matters with them. Thinks that if the disorder of small-pox was in the system, the sore would assume a variolous appearance, if it put on any thing—it would probably disappear. Witness saw the child by accident about the 3d of July—found it blind, and its condition surpassed any thing he ever saw. The disorder generally kills before it reaches that point. Its eyes were sore—its cheek ulcerated. Saw it again in the early part of September—then the jaw was lost, and the ulcer had extended down the neck—the food ran out of the sore. Has no doubt it was all small-pox. If there had been any other disorder, it would have shown itself distinctly at that time; had patients in that neighbourhood; heard of it there; but searched diligently, and could not find a solitary instance of small-pox in the neighbourhood.

*Cross-examined.*—Never saw or read of so frightful a case. Taken naturally, small-pox is more virulent than inoculated. When Dr. Blachley was called in, thinks he could have judged by the arm. Would expect to see the eruption on the tenth, eleventh, or twelfth day—it would be sick two days before, or more. Could not decide from the appearance of the child, after the eruption was completed, and crust formed, whether the disorder was inoculated or natural.

Hannah Rankin.—A grand-child of witness was inoculated by defendant at that time. He was five or six years old. Can't tell how long it was before it sickened—kept no account as they supposed it was kine pock. Dr. Ayres attended the child. Does not know that Dr. Blachley saw it. Defendant did not call. He came while the child was ill and confined—she asked him if he wanted to see the child—he said, no. She was angry that he did not call and attend the child, as she had to pay Dr. Ayres. Plaintiff's child was then sick: her child was getting better—it was sick about a fortnight—is very much marked. The second inoculation could not describe any thing. Saw no sore on the arm before the small-pox broke out. When Dr. Ayres saw it, the eruption was out.

Catharine Boyle.—Her child was inoculated same time, and in the same room, on the foot—he took sick the fourth day after he was inoculated—

took sick the same time as O'Neil's—she was sick till she died. It lived within five days of four months. It was not sick when inoculated. He broke out with the small-pox, and eleven days before he got well—then broke out in scabs, and then got black, and stinking matter ran out of the ears. Defendant did not call again, though he promised. The spot he inoculated was sore; it raised up in red lumps. The child had never been out of the house before inoculation. The first time (in the foot) did not take—the child took sick the fourth day; she was cross, and hot and warm on the skin, and the little spot got red. She was sick for three days, and in eight days time it came out all over the body—she took notice of the days. On the eighth day he broke out in red spots, and in ten days he was all broken out over the body. No doctor called to her child. The pock came out middling large. Between the eleventh and twelfth day it was going back again.

Abigail Everett.—Knew plaintiff's child, it was remarkably healthy. Only saw it once after it was ill—then very bad.

Mrs. Rankin again.—Thinks her child was inoculated in the arm.

*Mr. Price*, in opening the case for the defendant, remarked, that the extent of the plaintiff's claim for damages, was not less extraordinary than the manner in which they were sought to be obtained. The court, he said, would instruct the jury that the father's right of action rested upon, and could not exceed the loss of his child's services (if any such thing, in truth, existed) from April until September following, together with the amount expended by him in the care and cure of the child; and for this the plaintiff had laid his damages at $5000. No loss of service bad been proved, nor had the plaintiff stated the amount expended; he appeared to rely upon unproved damages, to be ascertained by an affecting appeal of his counsel to the jury. The defendant had studied with Dr. David Hosack. The defendant, a young man of very amiable manners and respectable acquirements, was employed, as has been stated, for the sum of 100 dollars to vaccinate in a very large district of the city, and had for that compensation only, vaccinated eight hundred and seventy subjects. The child in question, said Mr. P. we contend was vaccinated by the defendant at a time when, in all probability, the natural small-pox was latent in its system, and that Dr. Blachley never saw the child until vaccine pustule had put on the character of small-pox. That the child was thus affected, will appear from the testimony of the most respectable physicians in our city, by some of whom, the child was at different stages of its disease carefully examined. The fact is not disputed, that the disease of the child was that of the most aggravated confluent small-pox. The witnesses to whom I have referred, will state that such a case, (as far as their reading and experience enables them to judge) never yet proceeded from inoculated small-pox; the disease thus received generally, and almost universally, being of a milder character. That it is quite out of the question, that the ravages in this case, could have proceeded from vaccination. In a word, we expect to prove the child died of small-pox, proceeding from the visita-

tion of God, and not from any negligence or want of skill on the part of the defendant. The testimony will, it is true, be received from physicians. But I think I can promise you, that they are incapable of deceiving you, and that from their great skill and knowledge of their profession, they are not themselves deceived. The case is of vast importance to the defendant: he has chosen a profession, to the study of which, he has already devoted many years of his life, and a verdict in this case against him, is his professional death.

*Dr. Hosack.*—Defendant's character as a physician and a man is good. At the time in question small-pox prevailed. He saw the child, and the jaw was not diseased, nor any hole in the face. It had the small-pox in the natural way: *such a case could not have proceeded from small-pox by inoculation.* It is as certain as any truth in medicine, that small-pox by inoculation does not produce fever until the seventh or eighth day, nor pustule until the eleventh day. Wherever the seat of irritation is, there the small-pox will first break out. The child might have been vaccinated, and the vaccine pustule have exhibited itself, yet, if the small-pox was then latent in the system, it would communicate its character to the vaccine pustule, and give it all the appearance of small-pox. In small-pox taken in the natural way, the second-day fever comes on after the eruption. No physician who had any regard for himself or his patient, would now inoculate with small-pox—the practice is exploded. When the small-pox is taken naturally, the proportion of deaths in adults is one-third—in infants one-seventh; in inoculated small-pox, one dies in five or six hundred. Dr. Scott told me, that during the revolutionary war he inoculated a whole regiment, and not one died. Inoculation cannot communicate any other disease than the small-pox.

*Dr. Blachley.*—Saw no appearance of syphilis on the child. It could not have escaped his observation. Thinks natural small-pox did at that time exist in the neighbourhood. Thinks he who saw most could form the best judgment. Knows of no instance, and has read of none, where the same ravages resulted from inoculation. Should suppose Mrs. Boyle's child had it naturally.

*Dr. Watts.*—Saw the child—Dr. Quackenbos requested him to go. Dr. Harriot accompanied him in July—early in July. Examined the child—its eyes were destroyed by small-pox. He thought at first that the child had been subjected to mercury. Saw the jaw-bone in a tumbler of water; had frequently visited in that neighbourhood cases of small-pox; had no doubt the child had natural small-pox; does not know of physicians carrying about small-pox matter. All reputable physicians refuse to inoculate with small-pox. Never knew such ravages to proceed from small-pox. At the time he saw it it was labouring under the consequences of it. The consequences of small-pox may be of other diseases lighted up by small-pox, such as scrofula. From what he has heard he is confirmed in the opinion that the child took the disease in the natural way.

Dr. Watts—Saw frequent cases of small-pox in that neighbourhood that spring.

Dr. Manley—Saw the child about the latter part of July. It was brought to his house. It had laboured under the small-pox. Heard part of Mrs. Baxter's and Dr. Blachley's testimonies, judged it the natural small-pox.

*Cross-examined.*—The small-pox requires careful treatment. The eruptive fever should be modified. If the doctor knew the symptoms, he should attend to it. In state prison, witness lost three out of forty-seven, of natural small-pox.

E. W. Laight—One of the Trustees of the City Dispensary. Defendant's reputation was very good, and gave satisfaction.

Lewis Wilcox—Was one of the Trustees—agrees with Gen. Laight.

Dr. Van Arsdale—Was apothecary to the Dispensary, at that time. Defendant generally got his vaccine matter from the Dispensary. Does not remember at that time particularly furnishing any to defendant.

Some other testimony to the same effect, was produced on both sides—after which, the case was summed up to the jury by Price and Emmet for the defendant, and by Maxwell and Anthon for the plaintiff—and, after a clear and emphatic charge from Judge Edwards, the jury retired, and returned with a verdict for the defendant.

Wylie, Anthon, and Maxwell, for plaintiff.
Price and Emmet, for defendant.

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*Sanguinarina.* Professor Dana, of the College of Physicians and Surgeons of this city, has recently made the interesting discovery, that the Sanguinaria Canadensis, contains a peculiar alkaline principle, to which he has given the name of Sanguinarina. It is a colourless crystalline body—when placed in the mouth it soon excites a sensation of pungent burning, which extends over the longest fauces, and is *persistent.* Sanguinarina is soluble in water; very soluble in alcohol; it combines with acids, and all its salts, as yet examined, have a shade of crimson of greater or less intensity; a colourless acid, and the colourless alkali by combination form a red salt. The colouring matter of the blood-root is unquestionably a salt, having the Sanguinarina for a basis and a peculiar? vegetable acid for the constituent. We shall hereafter publish a more detailed account.

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## QUARTERLY BIBLIOGRAPHICAL NOTICES.

1. *Use of the Dead to the Living.* From the Westminster Review. Albany, 8vo. pp. 40. 1827.

In an advertisement, prefixed to this pamphlet, we find the following:

"The following pages contain an article extracted from the Westminster Review, an English periodical of considerable reputation. On its appear-

ance in Great Britain, it excited great attention; and, indeed, has been there reprinted in a cheap form for general distribution. The author (Dr. SOUTHWOOD SMITH) deserves the thanks of the community for the talents he has displayed, and the lucid and powerful manner in which he has investigated the important subject under consideration.

"The editors believe that they are discharging a duty to the community in presenting it to them for perusal and consideration. They will not conceal their wishes, that it may have a favourable effect on a bill now pending before the Legislature. Both in a general point of view, as well as with reference to the particular institution to be benefitted, the arguments are particularly applicable; nor will an enlightened body of men be deterred from doing what they may deem their duty by the unparalleled impudence of those who *now* cry out against monopoply, when they have risen into importance by monopoply, and have, always, while it suited their views, been its most persecuting and vindictive advocates."

That the foregoing may be perfectly understood, it is proper to state, that during the last session of the Legislature, a bill was brought before the house by an enlightened member, making provision for furnishing the College of Physicians and Surgeons, in this city, with an ample supply of subjects for all the purposes of anatomical investigation. Of the propriety and justice of such a measure, we should have supposed no man in the medical profession at least, would have doubted. Strange as it may appear, however, the bill received a most violent opposition from a knot of medical men, who so far forgot the respect which they owed to the profession, as to publish in the daily prints a protest against the passage of the bill. Than this we do not remember to have met in the annals of our medical history, with an act more derogatory to our professional character; and we do not envy those concerned in it the inglorious notoriety which they have acquired by it. Will it be believed, in our sister States or in Europe, that the leader of this conspiracy against the advancement of anatomical and medical science, was DAVID HOSACK, M. D. F. R. S.!—and *late* Professor of the Theory and Practice of Physic in the College against which this opposition was directed?

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2. *Transactions of the Medical Society of the State of New-York for the year* 1827. New-York, 8vo. pp. 50.

Composed of delegates from every county in the state, the Medical Society of the State of New-York may be considered as embodying in itself the collected wisdom of the profession in this large and powerful state. As such we have always looked upon it as the true guardian of the honour and respectability of our profession. Thus far we have not been disappointed. The whole history of the Society furnishes the most decisive proofs of disinterested zeal in sustaining the character of the profession, and advancing the true interests of medical learning. During its late session, additional evidences of this fact have been furnished in the in-

creased spirit of energy and enterprise which have characterised its proceedings. Several measures have been projected and carried into execution, which reflect the highest credit upon the society, and must exercise the most beneficial influence upon the profession at large. These will be found noticed under the head of "Intelligence."

We cannot close this notice without directing the attention of our readers in an especial manner to the address of the president, Dr. JAMES R. MANLEY, at the opening of the Society, and which will be found as the leading article in the present number of this Journal. In this production, Dr. M. has sustained the high reputation which he has already acquired as an accomplished and independent writer. Dr. Manley, we conceive, his laid the profession under great obligations to himself for the spirit and ability with which he has, at various times, discussed subjects of great and general interest to the profession at large; and we are happy to find that the Society has given the following expression of their sense of their obligations:

"Resolved unanimously, That the thanks of this Society be presented to our late President, Dr. JAMES R. MANLEY, for the ability with which he has discharged the duties of this office, and for the zeal which he has manifested for the promotion of medical science while a member of the Society." Trans. p. 12.

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3. *Annals of the Lyceum of Natural History of New-York.* Nos. 4, 5, and 6. Vol. 2.

These numbers fully sustain the high reputation already gained by this useful and flourishing society.

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4. *The Quebec Medical Journal.* Published by XAVIER TESSIER. Editor and Proprietor. Vol. 2. No. 5. for January, 1827. In Exchange.

We extract the following very gratifying notice in relation to the progress of medical science in the Canadas.

"We are not a little gratified to witness the spirit for improvement which is rapidly spreading among the members of the profession. Within a period of twelve months, Quebec has to reckon the commencement of a Medical Journal, the establishment of a Museum of Natural History by our active and intelligent countryman, Mr. Chasseur; the formation of a Medical Society, and lectures are now given for the instruction of those who, in a few years, may contribute their share towards the perfection of all these important objects.

"Our friends at Montreal, although wanting some of the above Institutions, have also felt the impulse imparted to genius, for the cultivation of science, as we have the pleasure to witness the efforts which are making to render the profession respectable and truly useful to mankind. Four medical gentlemen, viz. Drs. Caldwell, Robertson, Stephenson, and Holmes, have, since a few years, been engaged in giving lectures on vari-

ous departments of medical science, and the success which they have encountered, is a flattering testimony of their qualifications to the task.

"There are at present in Quebec two gentlemen delivering lectures on Chemistry, and one on Anatomy and Physiology. Dr. Frs. Blanchet is lecturing at the Emigrant Hospital, and Dr. J. Whitelaw at the old Theatre.

"To Dr. Blanchet the profession is much indebted for his indefatigable exertions, both as a member of the Legislature and as a medical man. In the former capacity, however, we must regret to say that his principles have sometimes differed from the majority of his brethren; but as a medical man, we are confident we express the opinion of all the profession in saying, that his unremitting efforts have not a little contributed to raise the profession to its present improved state among us.

"Dr. Blanchet also has the credit of being the first Canadian medical author. His work on the application of Chemistry to the science of medicine,was promising a very useful member to his profession; and we acknowledge with pleasure, that an unremitting study of Chemistry since that period, must render his lectures highly scientific and interesting to the hearer, should his age and unwearied occupations permit him to prosecute still further his exertions in cultivating a science in which he has rendered himself so proficient.

"The other lecturer on chemistry is Dr. Whitelaw. Had not the advantage of a personal acquaintance with this gentleman, afforded us an opportunity of being convinced of his extensive knowledge as a medical man and as a chemist, the unexampled satisfaction which his first lectures have created in the minds of all competent judges, give an ample testimony of his superior merits as a lecturer. The plan of his intended course, and his unfastidious delivery, will greatly contribute to render it highly profitable under so able a master.

"The Anatomical lectures delivered by Dr. Douglass, equal, in our opinion, what is to be expected even in the most ancient Colleges, and the best regulated schools. We do not hesitate to pronounce his Introductory Lecture the most elaborate history of comparative anatomy which we have ever heard or read. We must then regret that the students of medicine do not sufficiently avail themselves of this precious token."—pp. 116–9.

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5. *A discourse on the character and services of* THOMAS JEFFERSON, *more especially as a promoter of natural and physical science.* Pronounced, by request, before the New-York Lyceum of Natural History, on the 11th October, 1826. By SAMUEL L. MITCHILL, M. D. &c. New-York, 8vo. pp. 67. 1826.

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6. *Journal Medical de la Gironde.* Nos. for May, June, July, August, September, and October. 1826. In Exchange.

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7. *Sixth Annual Report of the New-York Eye Infirmary.* pp. 8. New-York, 1827.

From this report we learn that 775 persons affected with various diseases of the Eye, have been treated at this Institution, during the past year. Through the liberal arrangement of the Directors of the Infirmary, all the Students attending the University are presented with free tickets of admission.

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8. The *Medico-Chirurgical Review*, conducted by JAMES JOHNSON, M.D. London. New Series, No. 11, for January 1827. In Exchange.

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9. *The Philosophy of the Human Voice; embracing its Physiological History; together with a System of Principles by which criticism in the art of Elocution may be rendered intelligible and instructive, definite and comprehensive. To which is added, a brief Analysis of Song and Recitative.* By JAMES RUSH, M.D. 8vo. pp. 586. Phil. 1827.

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## INTELLIGENCE.

The Annual Meeting of the Medical Society of the State of New-York was held at the Capitol, in the city of Albany, pursuant to the statute, on Tuesday, the 6th February, 1827. The following Delegates were present:

T. ROMEYN BECK, *V. Pres.* Albany.
PLATT WILLIAMS, *Sec'y.* Albany.
JONATHAN EIGHTS, *Treas.* Albany.
LAURENS HULL, Oneida.
JOSHUA CONVERSE, Schoharie.
JAMES STEVENSON, Washington.
PETER WENDELL, Albany.
WILLIAM BAY, Albany.
ELIAL T. FOOTE, Chatauque.
DELOS WHITE, Otsego.
JOHN MCCLELLAND, Columbia.
HENRY VAN HOVENBURGH, Ulster.
TRUMAN B. HICKS, Warren.
HARVEY W. DOOLITTLE, Herkimer.
JAS. MCNAUGHTON, Col. Phys. and Surg. Western District.
CHARLES D. TOWNSEND, Albany.
SAMUEL OSBORN, New-York.
THOMAS G. EVANS, Orange.
DANIEL AYRES. Montgomery.
MOSES HALE, Rensselaer.
ASA LEE DAVIDSON, Allegany.
ENOS BARNES, Yates.
THOMAS SPENCER, Madison.
MILES STEVENSON, Clinton.
ALEXANDER MCINTIRE, Wayne.
JOSHUA W. BOWRON, West-Chester.

The following gentlemen we e chosen officers for the ensuing year .—

Dr. T. ROMEYN BECK, President.
Dr. LAURENS HULL, Vice-President.
Dr. PLATT WILLIAMS, Secretary.
Dr. JONATHAN EIGHTS, Treasurer and Librarian.

CENSORS.

*Southern District.*

Dr. Felix Pascalis, Dr. James R. Manley,
Dr. Samuel Osborn.

*Middle District.*

Dr. Charles D. Townsend, Dr. William Bay,
Dr. Peter Wendell.

*Eastern District.*

Dr. John H. Steel, Dr. James Stevenson,
Dr. Daniel Ayres.

*Western District*

Dr. Luther Guiteau, Dr. Alexander Coventry,
Dr. Thomas Spencer.

COMMITTEE OF CORRESPONDENCE.

Dr. Harvey W. Doolittle, Dr. John B. Beck,
Dr. Henry Van Hovenburgh, Dr. John McClelland,
Dr. Thomas G. Evans, Dr. Delos White,
Dr. Truman B. Hicks.

COMMITTEE ON PRIZE QUESTIONS AND DISSERTATIONS.

Dr. John B. Beck, Dr. Jonathan Eights,
Dr. James NcNaughton, Dr. T. Romeyn Beck,
Dr. James R. Manley.

PERMANENT MEMBERS.

Dr. Elial T. Foote, of Chatauque, Dr. J. C. Cheeseman, New-York.

HONORARY MEMBERS.

Dr. Joseph Lovell, Surgeon-General, Washington.
Dr. John Onderdonk, President N. Y. County Medical Society.

The Prize Questions of $50 each for 1828, are,

1st. The Nature of Goitre, showing in what section of the United States it prevails, and by what atmospheric or topographical influence that affection is aggravated, and by what remedies it can best be relieved or cured.

2d. The History, Causes, and Cure of Scrofula, with particular reference to its prevalence and prevention in this state.

The Dissertations to be sent to the Secretary, on or before the first of January, 1828.

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## UNIVERSITY OF THE STATE OF NEW-YORK.

*College of Physicians and Surgeons of N. Y.*—Agreeably to an ordinance of the Honourable the Regents of the University of the State of New-York, the public Commencement of the College of Physicians and Surgeons was held in the hall of the College, on Tuesday the 3d instant. The following gentlemen, having complied with the ordinances of the University and the laws of the State regulating the practice of physic and surgery, and having on the preceding day publicly defended their respective inaugural dissertations, were duly admitted to the degree of Doctor of Medicine.

The President of the College, Dr Watts, officiated on the occasion, and delivered an impressive charge to the graduates.

The Rev. Dr. Harris, President of Columbia College, made the introductory and concluding prayers.

| *Graduates.* | *Subjects of Dissertation.* |
|---|---|
| John A. Anderson, | On Digitalis. |
| Amasa Barrett, | On Mental Despondency. |
| Eneas S. Condit, | On Cataract. |
| James E. Cornell, | On Amaurosis. |
| James H. Dickson, A.B. | On the Physiology of the Spleen. |
| Willam M. Herbert, A.B. | On the Pathology of Fever. |
| Theodore F. King, A.M. | On Typhus Fever. |
| John B. Loring, | On the Colchicum Autumnale. |
| Alfred C. Post, A.B. | On Temperaments. |
| Alexis Smith, | On the Topography, Climate, and Diseases of Otsego County. |
| Charles McKnight Smith, | On Purulent Ophthalmia. |
| Charles S. Tripler, | On the Irritative Fever of Drunkenness. |

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*College of Physicians and Surgeons of the Western District.*—The Regents of the University on the 31st of January, 1827, conferred the degree of Doctor of Medicine on the following gentlemen, recommended by the Trustees of the above College, after having passed the required examinations, and read and defended Theses, as follows:

1. Walker L. Bean, of South Carolina, on the Functions and Sympathies of the Liver.
2. Chauncey D. Bull, of Saratoga county, New-York, on the Effects of Light.
3. Archibald Catlin, of Herkimer county, on Hypochondriasis.
4. Amherst Childs, jun. of Seneca county, on Antimony.
5. Meriwether L. Cobbs, of Virginia, on Chronic Hepatitis.
6. William J. Delavan, of Seneca county, on Croup.
7. Jesse Day, of Monroe county, on Syphilis.
8. Stephen Gay, of Vermont, on Dysentery.
9. John Gorrie, of South Carolina, on Neuralgia.
10. Charles C. Haddock, of Erie county, on Cholera.
11. Jacob Jimeson, of Erie county, on the Customs, Habits, and Diseases of the Seneca tribe of Indians.
12. Moses Johnson, of Herkimer county, on the Epidemic Fever of 1826, as it prevailed in Salisbury and Fairfield, Herkimer county.
13. James Lawrence, of Saratoga county, on Phthisis Pulmonalis.
14. Dyer Loomis, of Montgomery county, on the Effects of Difficult Dentition.
15. Finlay M'Martin, of Saratoga county, on Uterine Hæmorrhage.
16. Peter P. Murphy, of Montgomery county, on the Influence of the Mind on the Body.
17. William W. Nugent, of Albany county, on Croup.
18. Noyes Palmer, of Onondago county, on the Phenomena and Treatment of Old Age.

19. Calvin Preston, jun. of Oneida county, on Hydrocephalus.

20. John S. Spalding, of Montgomery county, on the Theory of Menstruation.

21. Peter Sherwood, of Herkimer county, on Prussic Acid.

22. Abraham H. Slauson, of Rensselaer county, on Inflammation.

23. Abraham Snyder, of Herkimer county, on Hooping Cough.

24. Nehemiah Stebbins, of Vermont, on Fungus Hæmatodes.

25. John H. Wheeler, of Greene county, on the Influence of the Skin over the Internal Organs.

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It is with much pleasure that we have to announce, that on Tuesday the 13th March, the Regents of the University, on the nomination and request of the State Medical Society, conferred the honorary degree of Doctor of Medicine on the following gentlemen :

Dr. John Onderdonk, of New-York.
Dr. Jonathan Eights, of Albany.
Dr. Laurens Hull, of Oneida.
Dr. Thomas Fuller, of Otsego.
Dr. James Stevenson, of Washington.
Dr. Gain Robinson, of Wayne.

The above proceedings owe their origin to a memorial presented by the State Medical Society to the Regents, in 1826. In this it was stated, amongst other matters, that the degree of M. D. was, at the present time, the usual termination of a young man's medical education, while his elder brethren, from the circumstances attending their study of the profession, were seldom in the possession of that distinction. As the Regents were charged with the care of the Medical Colleges, and had the power of conferring honorary degrees, the profession, through their representatives in the State Medical Society, naturally made an appeal to them, annually to confer the degree on a small number, who should be of advanced age and respectable acquirements. The application was respectfully received, and in February 1827, the society, on the nomination of a committee of eight, (one from each senate district) presented the names abovementioned. Among the standing rules agreed to by the society, was the unanimous determination that none should be nominated unless they were above forty-five years of age; of respectable character and substantial medical acquirements: and further, that no nomination should be valid, unless two-thirds of all the members should vote in its favour. These requisites having been complied with in the present case, the gentlemen nominated were presented to the Regents, who have conferred the honorary degree as above stated.

By this act, the Regents have acquired a fresh claim to the gratitude of the profession, in thus noticing its aged members, and bestowing on them as it were, a public reward for a life of active benevolence and duty.

# METEOROLOGICAL TABLE

## For the Year 1826.

***Kept at the City Academy, Albany, by T. Romeyn Beck, M.D.***

| 1826. | THERMOMETER. | | | | | | | WEATHER. | | | | | | WINDS. | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Mean temperature at 7 A. M. | Mean temperature at at 2 P. M. | Mean temperature at 9 P M. | Mean of all the observations. | Highest. | Lowest. | Greatest mo. range. | Greatest daily range. | Clear, (No. of days.) | Cloudy. | Variable. | Rain, (No. of days.) | Snow, (No. of days) | Rain Gage, (No. of inches.) | South. | South East. | South West. | West | North West. | North East | North. | East. | Prevailing Winds. |
| January | 25.67 | 31.09 | 26.45 | 27.74 | 53 | -3 | 56 | 21 | 7 | 14 | 10 | 4 | 4 | 2.43 | 11 | 2 | 4 | 6½ | 3½ | .... | 4 | .... | South |
| February | 24.35 | 36.07 | 28.96 | 29.79 | 53 | -12 | 65 | 24 | 11 | 12 | 5 | 4 | 5 | 1.36 | 8½ | 3 | 2½ | 6 | 4 | ½ | 3½ | .... | South |
| March | 31.96 | 44.77 | 36.54 | 37.75 | 69 | 13 | 56 | 28 | 10 | 14 | 7 | 5 | 4 | 3.81 | 8 | 3 | 1½ | 10½ | 2½ | .... | 5½ | .... | West |
| April | 37.66 | 52.93 | 42.60 | 44.40 | 76 | 22 | 54 | 36 | 16 | 10 | 4 | 6 | 3 | 1.77 | 6 | 4½ | 3½ | 7 | 5½ | .... | 3½ | .... | West |
| May | 58.16 | 75.93 | 65.38 | 66.49 | 92 | 45 | 47 | 28 | 19 | 4 | 8 | 4 | .. | 0.76 | 7 | 5½ | 3 | 4 | 3½ | .... | .... | ½ | North |
| June | 65.23 | 76.23 | 70.03 | 70.50 | 86 | 56 | 30 | 26 | 8 | 10 | 12 | 12 | .. | 6.22 | 5½ | 4½ | 1½ | 1 | 6 | .... | .... | .... | South |
| July | 67.06 | 79.70 | 72.58 | 73.11 | 90 | 56 | 34 | 22 | 20 | 3 | 8 | 7 | .. | 5.53 | 6 | 5½ | 1 | 3½ | 6 | 1½ | .... | .... | South East |
| August | 65.90 | 78.12 | 71.35 | 71.79 | 86 | 56 | 30 | 2+ | 16 | 6 | 9 | 8 | .. | 2.46 | 3 | 4½ | 1½ | 5 | 8 | 5½ | 3 | ½ | North West |
| September | 59.03 | 70.00 | 62.96 | 64.00 | 82 | 44 | 38 | 23 | 12 | 8 | 10 | 9 | .. | 3.58 | 5 | 5½ | 2½ | 3½ | 2½ | 1½ | 6 | ½ | South East |
| October | 47.06 | 57.58 | 51.12 | 51.92 | 72 | 31 | 41 | 23 | 18 | 6 | 7 | 7 | .. | 2.37 | 6 | 5½ | 2½ | 7 | 5½ | 1½ | 4½ | .... | West |
| November | 36.63 | 43.03 | 39.56 | 39.74 | 58 | 25 | 33 | 16 | 14 | 8 | 8 | 8 | 1 | 1.56 | 7½ | 9½ | 1 | 6½ | 3½ | 5½ | 2 | .... | South |
| December | 25.90 | 32.25 | 28.64 | 28.93 | 52 | -5 | 57 | 18 | 11 | 13 | 7 | 3 | 6 | 1.27 | 8 | 5 | 5 | 10½ | 6 | 3 | 2½ | .... | West |

### RESULTS.

| | |
|---|---|
| Mean temperature at 7 A. M. | 45 38 |
| Mean temperature at 2 P. M. | 56.47 |
| Mean temperature at 9 P. M. | 49.68 |
| Mean of all the observations | 50.51 |
| Highest during the year | 92° |
| Lowest during the year | —12° |
| Greatest daily range | 36° |
| Greatest monthly range | 65° |
| Greatest annual range | 104° |

### WEATHER.

| | |
|---|---|
| Clear days | 162 |
| Cloudy | 108 |
| Variable (partly clear and partly cloudy) | 95 |
| Rain (number of days on which it fell) | 77 |
| Snow do | 23 |
| Quantity of rain and snow during the year, | 23 inches 12-100ths |

### WINDS.

| | |
|---|---|
| South (number of days) | 84½ |
| South East | 60½ |
| South West | 34 |
| West | 70½ |
| North West | 54 |
| North East | 13 |
| North | 46½ |
| East | —— |
| | 385 |

Prevailing Wind—South.

# MEDICAL LEGISLATION.

As the subject is one of great and general interest to the medical profession, we publish the proceedings of the constituted authorities of this State in relation to the recent attempt of Rutgers College in the state of New-Jersey to locate a medical institution in the City of New-York.

The subject being first brought before the State Medical Society at its session in February, 1827, the following report was adopted by that body:

"The Committee to whom was referred the communications on the subject of diplomas, granted by institutions of this State not recognised by its constituted authorities, reported,

"'That they have examined the several communications referred to them with care and attention; that the facts therein stated, from the best information they have obtained, they fully believe to be true, and that the public good imperiously requires legislative interference.

"'Your Committee would, therefore, recommend, that the facts contained in the several communications be presented to the Regents of the University of this State, in the form of a memorial from this Society, and that they be requested to unite with this Society in an application to the Legislature, to procure the following amendment to the Law regulating the Practice of Physic and Surgery in this State:

"'Be it enacted by the People of the State of New-York, represented in Senate and Assembly, that all diplomas granted by authorities out of this State, to individuals who have pursued their studies in any Medical School in this State not recognised by the laws of this State, shall be void and of no effect, as it regards authorizing the said individuals to practice physic and surgery in this State.'"

This was promptly seconded by the honourable the Regents of the University, who passed the following resolution on the subject:

"At a meeting of the Regents of the University, held in the Senate Chamber, February 20, 1827—The State Medical Society having solicited an expression of the opinion of the Regents, on a memorial presented by the said Society to the Legislature, on the subject of Medical Schools within this State, not recognised by the laws thereof—Therefore,

"Resolved, That the practice alluded to in that memorial, is, in the opinion of the Regents, calculated to lead to abuses in granting of medical diplomas, will be eventually injurious to the progress of medical science in this State, and is an evasion, if not a direct violation, of the law regulating the practice of Physic and Surgery therein. The Regents, therefore, concur in the recommendation contained in said memorial."

Coming before the Legislature thus powerfully recommended, it was

treated by that honourable body with all the consideration due to the importance of the subject. As the able report of Mr. Foote, Chairman of the Committee to whom it was referred, presents a satisfactory view of the merits of the case, we shall publish it entire.

"Mr. Foote, from the standing committee on medical subjects, to whom was referred the petition of the Medical Society of the State of New-York, a resolution of the Regents of the University of the 20th February, and a remonstrance of sundry physicians of New-York city, respectfully *report*—That they have examined the subject matter of the memorial and resolution and remonstrance with all the care and attention which the importance of the subject submitted to them demands. They find that there are at least two institutions in this state professing to exercise the powers remonstrated against, under colleges located in sister states. One of these pronounces itself an adjunct to the University of Vermont, and the other to Rutgers (late Queens) college, in New-Jersey. It is correctly stated in the memorial of the State Medical Society that according to the laws of this State, all licences to practice Physic and Surgery must emanate from the State or county medical societies, and it is only by a special provision in the act relating to the University, that the degree of Doctor of Medicine is made equivalent to a licence.

"Whether these institutions in our state, not amenable to our laws, and acting under the authority of other States, should be permitted to grant licences, which shall authorise their professors to practice Physic and Surgery in this State, is the question now before the Legislature. It may be, and indeed is urged by some, that the city of New-York is sufficiently large to permit two medical institutions within its borders, and the cry of monopoly, so convenient to the remonstrants, is said to enlist the feelings of the community and prevent discussion. The committee are no friends to monopolies either in medical or other institutions: but it must be recollected that there is an incorporation composed of some of the most enlightened men in the State, to whom the care of all the colleges of this State has been entrusted by the Legislature, and who are invested with full power of deciding how numerous shall be the medical and other colleges of this State. This body (the Regents of the University) by a decisive vote in 1825, decided that the two chartered medical colleges of this State, were sufficient for the wants of our citizens. If this opinion was correct, in which the committee fully concur, it may be proper to ask whether its effects should be rendered void by the mere volition of neighbouring States. Is it proper that the system deliberately adopted by our own appointed tribunals, should be liable to serious injury by the encroachments from citizens of other States, not responsible or willing to be governed by the laws of this State? Besides, if the system that Vermont and New-Jersey has adopted, be correct, as to medical schools, what is to prevent them from establishing literary colleges within our borders? The committee are informed that the principal persons composing the lecturers in the New-

Jersey Medical College, made an unsuccessful attempt during the last summer, to connect themselves with literary colleges in this State. By Columbia College, in the city of New-York, it was rejected, and by other colleges, if the refusal was not as direct, it was probably because the application was not equally direct. It has been stated, and the committee have reason to believe, that in at least two States, similar applications were made, and the result would seem to have been equally ineffectual, until they were received by a College, which is now for the third time supporting a medical faculty in the city of New-York, in opposition to the institutions of the State of New-York.

"The Legislature cannot fail to remark the source from which this interference comes, and must be struck as to the want of courtesy as to territorial rights. The State of New-Jersey, although her chartered College grants these degrees, will not herself permit the graduates to practise within her own borders, until they have been examined by a board of medical censors. If she will not receive them herself, surely this State ought not in justice to her own citizens, to accept of them. The Legislature of this State has prescribed a certain term of study and other requisite qualifications before a student can receive a diploma, or the degree of Doctor of Medicine, yet the institution of which we speak, is not bound by any of those regulations, and their graduates thus evade our laws. The committee are of opinion, that a law similar to what is asked for by the State Medical Society and the Regents of the University should be enacted. It would not in the least interfere with the power of lecturing, but it would preserve that power which every State should maintain of prescribing the qualifications for practice in the different professions.

"The committee have prepared a bill and now ask leave to present the same."

We are happy to state, that since the preceding report was made, both Houses of the Legislature have almost unanimously passed the bill recommended, and a few days since it received the signature of Governor Clinton. It has, therefore, become a law of the State.

Upon the result of these proceedings we beg leave to offer our congratulations to the medical public. It is alike honourable to the profession and to the State.

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## TO READERS AND CORRESPONDENTS.

1. Our next number will contain communications from Professors Dana and Stevens, Dr. S. W. Moore, &c.

2. We are pleased to announce that Dr. Stirling, of this city, is preparing under the direction of Professor Stevens, an abridged translation of Velpeau's Surgical Anatomy. This work is, we believe, conceded to be the best at present extant on the subject of which it treats,

and in the form in which it is preparing for the press in this country, will be an exceedingly valuable present to students of surgery. In our next number we hope to be able to give a review of the original work.

3. Dr. David Hosack, of this city, late Professor of the Theory and Practice of Physic in the University of New-York, having published certain charges implicating the official conduct of the Professors of the College of Physicians and Surgeons of the Western District, one of these gentlemen has commenced a libel suit against Dr. H. The damages are laid at $10,000. It is expected that this suit will be followed by similar ones from some of the other professors.

4. Unsolicited by any of the parties concerned, we, nevertheless, deem it due to truth and justice, to give a place to the following circular.

"*College of Physicians and Surgeons of the Western District.*—The undersigned have seen certain insulting and even libellous remarks concerning the institution to which they are attached, in a pamphlet purporting to be an address delivered at the opening of a New-Jersey Medical school. This is the *third printed attack* from the same source, on the college in question, during the last two years.

The undersigned disdain giving any answer, further than to state that by far the major part of the allegations is false, while the small portion of them that has a foundation in truth, is grossly misrepresented. The Western Medical College, under the supervision of its board of trustees, is amenable to the Regents of the University, both as to its course of instruction and its government. To them and to the medical public, the undersigned hold themselves responsible, and not to an individual, who is incapable of appreciating the wants of the country, and whose wealth, habits, and feelings render him, even if he were capable, unable to sympathise with the peculiar situation of a portion of its medical students.

It is indispensably necessary to remark, that the author of these repeated attacks, (Dr. David Hosack) is the same individual to whom (according to the report of the comptroller) the *state of New-York* has paid upwards of $64,000, "*for the promotion of medical science.*" The decency and propriety of censures from such a source need no farther comment, particularly when the merits of the subject are to be weighed by a dispassionate and discerning community."

WESTEL WILLOUGHBY, M. D.
Professor of Obstetrics.

JAMES HADLEY, M. D.
Professor of Chemistry and Materia Medica.

T. ROMEYN BECK, M. D.
Professor of the Institutes of Medicine.

JAMES M'NAUGHTON, M. D.
Professor of Anatomy and Physiology.